

WTC Update 32 - (10/31/01)

External Coordination:

- Chief Blaich of FDNY announced yesterday that the site is now under the joint command of FDNY and DDC. This prompted Kelly McKinney of DOH to again request OSHA to conduct enforcement activity. He was informed we would continue in our consultative role.
- DDC rep reported the Mayor's Office made it perfectly clear safety is a top priority and anyone not following the plan will be removed from the site.
- DDC responsible for distributing Bechtel site ES&H plan which is currently in effect.
- RA Clark attended meeting this morning to prepare for presentation to the NY City Council. DDC and other federal/state/city reps were present. NYC Council meeting will be held tomorrow from 10:00am - 12:00 noon. Information from other Federal, State and City agencies will also be presented.
- Today, OSHA conducted weekly meeting with primes, subs, DDC, DOH and MSA reps to present/discuss the following:
 1. Quantitative Respirator Fit Testing.
 2. Hazard trend update.
 3. Cranes and Rigging inspection update.
 4. Compressed Gas Cylinder/Tube Trailer initiative.
 5. Orientation/training developments.
 6. Respirator use compliance spot checks.
 7. OSHA 200 logs.
- OSHA NJ Compliance Assistance Specialist, (CAS), attended WTC Site Safety Training planning meeting yesterday. As a result, a working committee of 10 people including our CAS will develop the curriculum agenda. ¹ of the Center for the Protection of Worker's Rights (CPWR) will finalize the package within 8 days. The purpose of the orientation training is to provide site specific information that will familiarize workers with the site's potential hazards, PPE requirements and overall site safety rules. The training will be conducted in about 2 1/2 hours. Once all current site employees have been trained, the orientation session will be conducted once/week for all new hires. Employees brought on site the day after the weekly orientation session is held will receive face to face orientation from their respective contractor and then attend the next scheduled formal session. As required in the site ES&H plan, it is expected that the site joint labor-management safety committee once established, will determine any additional specific training that may be necessary.
- ¹ conducted a follow up meeting with the Teamsters to discuss OSHA's role on the site. Their main concern is that the hauling companies were

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not providing their members with PPE. We offered to send letters to the company principles with copies to the primes, reminding them of their responsibility concerning worker safety and health with specific emphasis on PPE. Overall, Teamsters described the OSHA staff in "glowing" terms, particularly those at the command center. They were very complimentary of all OSHA staff and stated that OSHA is doing a great job all around.

- OSHA will attend Confined Space Entry meeting tomorrow.
- Turner expected to complete activity in their sector in four weeks. They have cut back to one 12 hour shift and may go to a 6 day work week.
- Major Porr of the Army National Guard indicated that they may leave the site on 11/6/01.
- Operating Engineers conducted an orientation session for new employees yesterday. FDNY provided assistance.
- OSHA Region II rep participated in today's NRT conference call.

Press and Public Relations:

- Al Belsky, DOL OPA, will accompany RA Clark and OSHA staff at tomorrow's NYC City Council meeting.

Risk Assessment/Monitoring:

- Bechtel reported elevated levels of freon, 2000 ppb, in water at underground level B-6 between 1 and 2 WTC. Samples taken 3 weeks ago revealed 400 ppb which indicates a leak. On 10/27, OSHA Miran 1B samples for Freon R-22 on the pile revealed a range of 1 - 6.8 ppm.. Tonight, OSHA reps will conduct personal air monitoring for Freon R-22 in this surface area of the rubble pile. On 10/24 and 10/25, OSHA conducted personal monitoring for Hydrofluoric Acid for workers in the rubble pile above where the Freon tanks are located. Sampling results reveal non-detected. Additionally, OSHA screening samples via Miran 1B on 10/26 revealed 1 ppm Phosgene in the plume. Sampling media for personal sampling for Phosgene has been requested from SLC. ATC remains onsite and will continue to sample this area in coordination with Liberty Mutual. OSHA sampling for these and other contaminants will continue in coordination with EPA, ATC and Liberty Mutual. (See accompanying sampling summary - file 10-31.wpd)
- NYS PESH reported they are continuing to do personal monitoring for City workers.
- Reps from Johns Hopkins University who have been conducting sampling for the Teamsters Union will be leaving the site today. They expect to have a sampling report finalized sometime next week. They may return to conduct sampling for the Ironworkers Union.

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- FDNY escorted technicians to conduct mold inspection/testing in 4 WTC, Concourse level.

Safety Team Monitors:

- Bechtel distributed their ES&H Summary Report. Significant safety and health hazards continue to exist at the site. (See accompanying file BechtelSafetySummary.pdf)
- From 10/25 - 10/28, OSHA safety monitors recorded 80 instances of compressed gas cylinder hazards. Early last week, FDNY released two Bulletins (#4 and #5) to address compressed gas tube trailers and compressed gas cylinders. This data was presented/discussed at today's contractor meeting and will be forwarded to FDNY.
- Phillips and Jordan reported that strobe lights will be installed on all heavy equipment at Staten Island Landfill. At times, back-up alarms cannot be heard. Additionally, all NYPD personnel will be provided and required to wear reflective vests.

Respirator Fit Testing:

- Beginning 11/1/01, OSHA and MSA will coordinate and conduct quantitative fit testing using porta counts for all workers onsite. The prime contractors were provided paper and electronic copies of the medical evaluation questionnaire. Completed questionnaires will be provided to Vallen Occupational Safety and Health, (MSA contractor), who will then conduct the medical screening for workers.

Personnel Resource Coordination:

- Nothing to report.

Equipment Coordination:

- Nothing to report.

General Information:

- NYC DEC rep, Captain Ravella, issued summons to two truck drivers for not complying with the DOH order regarding vehicle wash facilities. Each summons carries a \$10,000 penalty and possible sentence of one year in jail.
- Substantial removal of 2 WTC facade continues.

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OSHA SAMPLING RESULTS SUMMARY AS OF 10/31

- Asbestos:** A total of 615 air monitoring samples for asbestos have been taken. From 9/13 - 9/22, 177 samples were taken in the financial district. They were taken on OSHA personnel as they walked within certain predetermined zones. Results revealed asbestos concentrations ranging from ND to .037 f/cc., well below OSHA's permissible exposure limit (PEL) of .1 f/cc.
- After 9/22, sampling focused on the rubble pile and those workers working on or immediately next to it. 63 of 438 samples exceeded OSHA's limit via PCM analysis. However, upon further analysis using discriminating counting methods and/or TEM analysis, the number of asbestos fibers found dropped dramatically to below detectable levels or well below .1 f/cc.
- Carbon Monoxide:** A total of 41 personal samples of workers on the rubble pile showed results ranging from 1 ppm to 34 ppm which are well below the OSHA 50 ppm permissible exposure limit.
- Noise:** OSHA has been conducting noise monitoring in the rubble pile. Twelve personal samples have been conducted on employees performing (or working near) various operations such as jack hammering. Employee's exposure to the noise range from 80.6 dBA to 89 dBA. OSHA's permissible noise exposure for construction is 90 dBA
- Respirable Silica:** The overwhelming majority of the 217 silica samples show no detectable levels of airborne silica. The highest sample result was approximately twice the OSHA limit, whereas the next highest level was less than half of this limit. Both of these levels were found on personnel working in the rubble pile; an area where OSHA continues to encourage the use of respiratory protection.
- Volatile Organic Compounds:** OSHA has taken 244 samples for (VOCs) such as acetaldehyde, acrolein, acrylonitrile, benzene, 2-butanone, chlorodiphenyl (PCB), isocyanates e.g. (MDI, TDI), ethyl benzene, formaldehyde, hexone, perchloroethylene, phosgene, styrene, toluene, 1-3 butadiene, trichloroethylene, vinyl chloride and xylene. Screening samples initially showed elevated levels of some organic chemicals resulting from the fires burning in the rubble pile. Subsequent personal and area samples show worker exposure levels to be below OSHA limits. However, one personal sample result for benzene was found to be at the 8hr OSHA Allowable Limit concentration of 1ppm. This was found on a backhoe operator moving debris.
- Oxides of Nitrogen /Sulfur:** Sampling on grappler operators on the rubble pile, and on employees manning truck wash stations revealed trace levels of nitric oxide and nitrogen dioxide. SO₂ results are pending.
- Metals:** As of 10/23/01 OSHA has taken 293 air samples to monitor worker exposures to dusts, fumes, oxides, and other compounds of metals such as antimony, beryllium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, vanadium, zinc, cadmium, magnesium, arsenic, and mercury. Results from these samples are generally well below the applicable OSHA limits. However, torch cutting and burning structural steel at the rubble pile have resulted in instances of overexposures as follows: copper (7); iron oxide (7); lead (3); and cadmium (3). Accordingly, OSHA is recommending that workers engaged in these operations wear appropriate respiratory protection.
- Ionizing Radiation:** A survey of the rubble pile was conducted on 10/22-10/23 to check for latent radiation with particular attention to alpha radiation. Preliminary results show no

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elevated levels.

Dioxins:

The single sample taken by OSHA and analyzed by the EPA, representing exposure on the pile, showed elevated levels of dioxins. These levels were substantially higher than background levels but comparable to levels found by the EPA on the rubble pile. The dioxins found here are emitted from the on-going rubble fire. OSHA does not have a worker standard for dioxins. Dioxins are considered collectively as suspect human carcinogens. Some of the individual compounds are considered to be known human carcinogens. OSHA has taken seven additional samples which have been forwarded for analysis. OSHA is currently conducting additional sampling for dioxins and is coordinating with EPA, and Salt Lake City Analytical Laboratory to more fully characterize exposure and risk around the rubble pile.

**Polynucleated Aromatic
Hydrocarbons:**

OSHA identified several elevated samples, three of which reached or exceeded OSHA's coal tar pitch volatiles PEL of $.2\text{mg}/\text{M}^3$. These personal samples were taken on the pile on iron workers and grappler operators. OSHA continues to strongly recommend the use of respiratory protection when working on the rubble pile.

Freon R-22: In response to information about exposure to the combustion by-products of Freon 22 used in the air conditioning systems of WTC towers, OSHA conducted sampling for fluorides as HF. Results revealed non-detectable levels.

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WTC EMERGENCY PROJECT
BECHTEL ES&H SUMMARY REPORT
September 12 through October 29, 2001

MAJOR ES&H ISSUE	STATUS
Contractor Commitment to ES&H Program	There has been some improvement in recent weeks, but there is still a long way to go. Contractor management, supervisor personnel, and safety reps. should lead by example with respect to compliance with ES&H requirements. Also, contractor safety reps. should be fully knowledgeable of OSHA requirements.
ES&H Training	Comprehensive ES&H training should be conducted ASAP for all site workers including those currently working onsite and all new hires. Training package included in ES&H Plan.
Personal Protective Equipment	Use of PPE continues to improve site-wide. However, there is inconsistent use by NYPD, National Guard, FDNY, visitors, and some agencies especially with eye and respiratory protection. Proper use of PPE by contractor personnel has improved substantially over the past few weeks particularly with respect to hard hats and eye protection; however, inconsistent use of respiratory protection continues to be an issue.
Fall Protection	Adequate fall protection is basically non-existent in man baskets, in demolition operations on WTC 6, and in various worker activities on the pile. Most subcontractors doing scaffolding and cleaning of buildings do not ensure the use of proper fall protection by their employees.
Vehicle Safety	Gator and golf cart issues: excessive speed, over-loading, careless driving around heavy equipment, and moving in and out of traffic without using turn signals, continues to be a serious safety concern.
Crane Setup and Operation Safety Concerns	These issues have been addressed in reports prepared by Bechtel/OSHA, Liberty Mutual, and the NYC Department of Buildings. See attached updated crane summary report.
Safety Barricades	Barricades, railings, or other barriers around deep open holes are still a concern (e.g., lack of barricades around excavations greater than 5' in depth). There is inconsistent use of barriers protecting other hazardous locations (e.g., gas cylinder storage areas) and some of the subcontractors cleaning buildings are not properly barricading roof ledges, window openings, and scaffolding ends.
Unsafe Operation of Heavy Equipment	Some heavy equipment still lacks back-up alarms or spotters and operators continue to swing loads of debris and steel over workers and fire fighters.
Confined Space Entry	Verizon, ConEd, and contractor personnel continue to enter subterranean levels without proper notification to FDNY and DDC. Proper permits should be obtained and notifications made prior to working below ground.
Demolition Plans	A formal process for safety review/approval by DDC and other appropriate parties (e.g., FDNY) of contractor proposed demolition plans should be established ASAP.
Compressed Gas Cylinders	Most contractors/subcontractors have inadequate storage areas for gas cylinders and use unsafe practices (e.g., improper securing). These deficiencies should be corrected ASAP. FDNY order now in affect.

10/30 - 6PM - EOC S & H Meeting:

Chief Bleich of NYFD announced that the site is now under the joint command of NYFD and DDC. He said they no longer would be actively searching for "voids" in order to find bodies. He said this was a result of an order issued by the mayor late last night. He said the plan is now to remove debris as fast as possible but if an area is found with whole bodies, then they would slow down. He said there would no longer be a 7PM IC meeting. Instead those people would be part of the 9AM DDC/contractor meeting.

This information prompted Kelly McKinney to ask if this would now allow OSHA to start doing enforcement. I asked if it was still an active fire site. The Chief said it was. I asked if there was a disagreement in the joint command, which would have final say. The chief said if it were a fire issue it would be NYFD, if construction DDC but there were nothing in writing. Kelly McKinney asked the Chief if there was anything officially saying that the site was no longer a recovery activity. The Chief said the order was not in writing. I told Kelly that I would forward his request to OSHA's RO.

Bob Adams stated that the Bechtel S & H plan is in effect and will be enforced. He said the Turner should be done in 4 weeks and is currently working one 12-hour shift and may go to 6 days. He said they are now working on 130 Broadway Building.

Liberty Mutual representatives brief outlined what they are would be doing and that they had met with OSHA's safety monitors and crane team.

DDC and DEC asked EPA if they could install some sort of permanent ^{lead} ~~ferm~~ monitors. EPA said they would like into it.

Major Porr said that the National Guard may leave the site 11/6 but there is nothing official.

EPA report that one of the Gators was not allowed to enter the site and ask why. OEM explained there had been some miscommunication with NYPD. There was an order to stop POVs from entering the site but NYPD that it meant all vehicles. OEM stated this has been corrected.

DOH and DEC reported that the use of Pier 25 has become problematic due to objections being raised by residence of Independence Plaza. No decision has been made yet but alternatives are being looked at.

Philips and Jordan representative reported on the SI landfill. He said there are in process of putting strobe lights on heavy equipment, as it is hard to hear the back-up alarms at times. They are getting reflective vest for the NYPD people.

NYDEP announced that they will no longer have their water main repair crew on standby at the site because every water that could have broken has done so.

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Mendelson Richard

From: Jerome, Edward [edward.jerome@osha.gov]
Sent: Wednesday, October 31, 2001 9:06 PM
To:

Ex 7

Subject: Zoldan, Efraim
Oct. 31 Safety Meeting 6:00pm

The following issues were discussed at the 10/31/01 6:00pm EOC Safety Meeting:

1. ** This Friday (11/2) will be the last 6:00 pm Safety meeting at the EOC. Safety will be covered as part of the 8:00am meeting with the contractors. The Staten Island safety issues will be covered at the 11:00am Mon, Wed, Fri meetings.

2. Respirators - 1 from MSA discussed the quantitative respirator fit testing. MSA will be donating 30 days of fit testing of all manufacturers' respirators with assistance from Operating Engineers, OSHA, and DOH. Two sites will be used (trailer and mobile trailer at World's Fair grounds). Tomorrow will be used for set up and hope to be in operation by 1:00pm Friday. It was felt that a period of time from 1:00pm to 1:00am would be best to reach most contractor workers arriving on-site. Tom also discussed the medical questionnaire given to contractors, and the orange packet and wallet cards which will be distributed to those who are fit tested. Kelley stated that after 30 days fit testing will be the contractor's responsibility.

3. Liberty Mutual: discussed the inconsistent use of PPE and felt there was confusion as to when PPE is required since the debris pile is shifting. 1 feels that some type of barrier or better definition is needed to identify where the PPE use is required. Also, discussed the need for fall protection and identifying where it is necessary and communicating this information.

4. Staten Island landfill - talked about their fit testing and respirators. An emergency action plan, covering issues such as severe weather, fire, evacuation, etc., will be submitted to the Corps of Engineers by Friday. A dust suppression meeting will be held tomorrow at 11:00am. (Also, see below)

5. OSHA brought up the issue with the NYPD burning barrels and the fire extinguisher which did not work. No one from NYPD was at meeting. Also, brought up the issue of the West and Albany St. PPE location and losing a new site to the NYPD.

6. Confined space meeting is set for tomorrow after the 8:00am meeting (was originally set for 10:00am). Entries are taking place into B6 levels. Emergency escape equipment is needed for these entries.

7. Freon: A meeting to discuss remote Freon monitoring at a 3:00pm meeting at IS-89 3rd floor. EPA will attend.

8. EPA: there was discussion about the sprung structure, its future use, and Battery Park City wanting their land back. Potential use as a canteen, & respite area was discussed especially as cold weather sets in, Red Cross leaving (after Thanksgiving?), and losing the 101 Murray St. location. There are also issues of work at the piers disturbing nearby residents.

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9. ***Toward the end of the meeting, the FBI (Staten Island) began to question OSHA's requirement for quantitative fit testing and wanted to know in which standard was this required. Their concerns seemed to be that they had 800-1,000 people on-site, that the NYPD would be bringing up to 10,000 on-site, and the lack of porta-counts to do the fit testing. Also the need to do quantitative testing instead of qualitative was a possible issue. We discussed briefly about exposure assessment at the site to determine precisely where respirators were actually needed thereby reducing those who may need fit testing. Also, mentioned the possibility of engineering controls to reduce exposure, since it may be possible to control this site, which is not the case at WTC. Suggested that they continue to speak with Bob Kulick and Mike Yarnell.

WTC Update 33 - (11/02/01)

External Coordination:

- Firefighters clashed with NYPD today during a protest at Ground Zero (GZ) in response to Mayor Giuliani's decision to reduce the number of firefighters on site and split command of the site between FDNY and DDC. Earlier in the week the Mayor announced that for safety reasons, he wanted no more than 24 firefighters and 24 police officers at GZ at any one time. Several firefighters were arrested following altercations with NYPD. Both the Mayor & the Firefighter Union officials held separate press conferences later in the day reiterating their positions.
- RA Clark attended and provided testimony at the NYC City Council meeting yesterday. Although there was some interest in worker safety, the Council members were primarily interested in the cumulative effect on city residents of substances released in the air from the site.
- OSHA staff along with reps from DDC, Port Authority, FDNY, & NYPD attended Confined Space Entry meetings yesterday and today to discuss the need for a site Confined Space Entry Plan and to determine what at the site will be considered a confined space. It was decided that all plans will be reviewed by FDNY, DDC and OSHA prior to commencing work. FDNY must be notified prior to entering confined spaces. All parties agreed to maintain compliance with OSHA's General Industry Confined Space standard. All agreed a confined space will be defined as any underground entry below levels B1 as well as manholes, vaults, etc.. A 3 D model of the twin towers will be available shortly to assist in planning confined space entry work.
- A one call system for all emergencies will be established shortly and routed to the FDNY command center at 1010 Liberty St..
- OSHA Region II rep participated in today's NRT conference call.

Press and Public Relations:

- Al Belsky, DOL OPA, accompanied RA Clark and OSHA staff at yesterday's NYC City Council meeting. RA Clark conducted one on camera interview for Channel 11 before the Council meeting. This was aired on the 10 PM news. WABC radio also picked up testimony from the hearing & aired it. Both relayed our message on our sampling results & the need for workers' on the debris pile to wear respiratory protection.
- Kirstan Danis of the *New York Post*, authored an article which appeared in today's paper covering yesterday's NYC Council meeting. RA Clark was misquoted.
- Greta Van Susteren with CNN requested EPA and OSHA reps to appear on tonight's *The Point* show to discuss the environmental quality of the WTC site. Joel Kupferman, Director of the New York Environmental Law and Justice Project is scheduled to appear

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on the show. It is reported that Mr. Kupferman filed papers on 10/29/01 to sue OSHA for failing to warn the workers of the hazards at WTC site. It is likely that OSHA & EPA will not appear.

- As follow up to an interview conducted on 10/30/01 with Eric Lipton of the *NY Times*, RA Clark will be providing Mr. Lipton via email, a power point presentation depicting safety hazard trends noted at the site.
- Yesterday as follow up to the City Council hearing, RA Clark spoke with Dan Fagen of *Newsday* concerning OSHA's enforcement activities at the WTC site. Sampling results were also discussed.
- *Newsday* reporter Graham Rayman, spoke yesterday with Chester Fultz, DOL OPA and Avenel AD, Bob Kulick concerning OSHA's role at Staten Island Landfill. No coverage in today's paper.
- RA Clark will be interviewed tomorrow by Queena Kim, *Wall Street Journal*, to discuss OSHA's role in reducing the number of injuries at the site.

Risk Assessment/Monitoring:

- OSHA rep attended Freon sampling meeting with reps from EPA, DEC, DOH, DDC, Port Authority etc.. Hudson Technologies will be setting up real time monitors next week to determine the extent of the Freon leak(s). OSHA sampling for Freon will continue. Another meeting is scheduled for Tuesday, 11/6/01, OSHA rep(s) will attend.
- OSHA sampling results from the Staten Island Landfill are up on OSHA's web page.
- To date, OSHA sent letters to 365 workers providing them with personal sampling results.

Safety Team Monitors:

- OSHA staff conducting safety monitoring tours will be accompanied by Liberty Mutual staff.
- DDC/Liberty Mutual will be providing contractors with an ES&H Weekly report format so that accident and injury statistics can be recorded consistent with OSHA's Record keeping requirements and the ES&H Plan.

Respirator Fit Testing:

- OSHA, MSA, DOH and Operating Engineers began conducting quantitative fit testing using porta counts for all workers onsite.
- OSHA respirator fit checking operations moved from PS89 to the OSHA site ops trailer,

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and from West & Albany to Liberty and Church Sts.

Personnel Resource Coordination:

- Region II staff will provide 24 hour coverage for all functions this weekend.
- Site is scheduled to close down for Veteran's Day from midnight November 11, 2001 to midnight November 12, 2001. OSHA staff coverage will be adjusted accordingly.

Equipment Coordination:

- Nothing to report.

General Information:

- Local 1199 planned to hold a meeting today geared for health care workers (~3500 delegates expected to attend) to discuss infection control procedures as it relates to Anthrax and other bioterrorism threats.
- Fourteen tiebacks installed in slurry wall south of 2 WTC (Liberty Street), six are tensioned.
- Removal of 2 WTC south facade substantially complete.

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Date: November 1, 2001
 Staten Island Debris Disposal
 Daily Safety Monitor Summary Report for 10/31/01 Day and Night Shifts

Unsafe Act/Hazards Identified	Corrective Action Taken	Proposed Long-Term Solution	Status
Personnel not consistently wearing proper PPE, (hard hats, respirators, suits, or glasses), includes workers, operators, and supervisors.	Issue presented to employee or immediate supervisor. Identified where the employee may conduct the activity. While PPE usage has not reached our goal of 100% we are currently at approximately 95% compliance.	Notify shift supervisor, emphasize appropriate PPE use in exclusion zone in pre-shift meetings. Strongly encourage proper PPE use.	Open
Back-up alarms inoperable or not audible enough on some pieces of heavy equipment.	Notified supervisor and contractor safety supervisor.	Informed equipment supervisor of the specific machines that are not in compliance.	Closed
Lights not operating on some pieces of heavy equipment.	Notified contractor safety supervisor.	Develop summary of specific equipment deficiencies. Provide information to subcontractor supervisors.	Open
Gasoline stored in plastic containers in some areas.	Purchased safety cans, waiting for delivery	Replace plastic gas cans with safety cans.	Open
Some personnel were observed listening to walkmans in exclusion zone	Issue presented to agency supervisor. Identified where the employee may conduct the activity.	Incorporate this topic into the pre-shift safety meetings.	Open
Personnel resting/taking off PPE in some areas of exclusion zones.	Issue presented to employee or immediate supervisor. Identified where the employee may conduct the activity.	Designate rest areas outside the exclusion zone. Notify shift supervisor, emphasize appropriate PPE use in exclusion zone in pre-shift meetings. Strongly encourage proper PPE use.	Open
Personnel eating and drinking, in exclusion zone.	Issue presented to employee or immediate supervisor. Identified where the employee may conduct the activity.	Move drinking coolers out of exclusion zone. Designate outside rest areas adjacent to the exclusion zone. Notify shift supervisor, emphasize appropriate PPE use in exclusion zone in pre-shift meetings. Strongly encourage proper PPE use.	Open
Rebar falling from payhaulers onto the haul road and in the work area. Hazard to workers walking, working on screens, or driving through work zone.	Documented in field notes.	Load trucks properly, design hauls to avoid ground workers, increase worker awareness to the hazards on the ground. Design plan for material entering the screens.	Open
Trip hazards - unused equipment in exclusion zone.	Issue presented to affected personnel, equipment picked up.	Incorporate this topic into the pre-shift safety meetings.	Ongoing
Inadequate lighting in some areas.	Additional light plants have been set up on site. Conducted lighting survey. Safety supervisor communicates with operations to immediately fix poorly lighted areas.	Results submitted to Contractor Operations Manager.	Ongoing
DOS dump trucks appeared overloaded, dragging material out of back of truck.	Activity noted in field logs.	Notify shift supervisor and contractor safety supervisor.	Closed
Personnel in new Sprung building during scraping and spreading activities not wearing respirators.	Encouraged personnel to don respirators in this area.	Inform their supervisor that personnel should vacate building during these activities. Incorporate this topic into pre-shift safety meetings.	Closed
Personnel observed resting in close proximity to heavy equipment operations inside the Sprung building.	Personnel were encouraged to exit the building while heavy equipment was operating. Asked operators to not work in area while personnel are resting in the work zone.	Incorporate this topic into the pre-shift safety meetings.	Closed
Personnel observed using excessive speed/using aggressive driving techniques when operating vehicles/equipment.	Noted vehicle, company, time, and location where possible. Issue presented to immediate supervisor.	Notified contractor safety supervisor, impose more stringent traffic/driving controls.	Open
Electrical supply cords for stadium lights have been damaged by heavy equipment.	Notified contractor operations and safety supervisors.	Identify locations of cords with cones or jersey barriers and inform operators of the presence of the cords.	Open

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Unsafe Act/Hazards Identified	Corrective Action Taken	Proposed Long-Term Solution	Status
Personal vehicles parked in the exclusion zone.	Notified contractor safety supervisor.	Designate parking areas outside of the exclusion zone.	Closed
Compressed gas tanks stored improperly.	Notified contractor safety supervisor.	Emphasize to appropriate parties the necessity to properly store compressed gas tanks.	Closed
Propane/compressed gas tanks observed in debris.	Notified contractor supervisor to coordinate removal. System set up to contact operations for immediate removal when tanks are located.	Implement protocols for storing and disposing of compressed gas/air tanks that are found in the debris.	Ongoing
Some light plants and generators appeared to be not grounded properly.	Notified contractor safety supervisor. Waiting approval of grounding plan.	Emphasize to appropriate parties that all generators and light plants must be properly grounded prior to operation.	Open
Personnel observed sitting/resting on operating screening machines.	Personnel informed that they should not sit or rest on the screening machines. Notified agency supervisor.	Notify contractor safety supervisor.	Open
Light plants in need of alignment adjustment or repair.	Notified contractor safety supervisor.	Inspect light plants nightly, identify and correct any problems.	Ongoing

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6-PM Safety Meeting
11/1/01

Effective Monday 11/5/01 there will be just one safety meeting held each day (Mon-Fri) at 8-AM at PS-89 (eventually moving to Amex bldg.) and an 11-AM meeting (M-W-F) at S.I.

On behalf of DDC, Sam Hess of Liberty Mutual mentioned the confined space meeting held this morning and that it was very effective. A primary agreement was the need for, and commitment to establish, a one call system for all emergencies at the site which will be routed to the FD command center at 1010 Liberty Street.

He also mentioned that it was agreed that safety monitoring tours will be done jointly with Liberty Mutual and OSHA representatives to ensure a consistent approach and message. In the same vein, they will be setting up regular I.H. meetings to better coordinate sampling and result reporting.

He stated that the contractors will be provided an ES&H Weekly Report format to submit their accident/injury statistics consistent with OSHA requirements and Section 1.8.2 of the site ES&H Plan. It was also recommended by Kelly that the information be regularly updated and posted in each zone.

OSHA mentioned the upcoming change in recordkeeping requirements and advised that our previously made offer to provide a training session on the new rules to the site contractors, which would help with consistency, still stood. Sam said he would bring it up at tomorrow's morning meeting but thought it was a good idea that would be taken up.

DDC indicated they needed to conduct an assessment to determine to what degree leaks may be present and to ascertain if they can access any valves they may need to shut off. Hudson Environmental will be setting up real time monitors for freon next week.

Some dust suppression products are going to be piloted at S.I. In particular they are looking at some products that may help when the cold weather comes in. They are also having a problem with barges going out of service, two so far with four more getting close, due to the huge quantities of water accumulating in them...100,000+ gallons. By next week they hope to have NYDEP permission to begin pumping it out in the sanitary water systems.

FBI reported their concern with cars and other vehicles that are being removed from the site, in particular, by federal agencies that own them. Their testing has found anywhere from 0 - 7% asbestos bulk samples and .45f/cc in air samples when working on these cars. Many of these vehicles have been contaminated throughout the cars interior, engines, ventilation and filtering systems. Kelly said that OEM would take up the issue and decide on what action needs to be taken, e.g. condemning all vehicles, some vehicles, etc.

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OSHA asked about the report that the National Guard would be leaving this Saturday. Maj. Porr indicated this was correct and that his unit will be replaced by the 101st Cavalry which will be an armed unit tasked ONLY with site security. When asked about the credentialing currently done by them, Kelly indicated that we wouldn't have a problem getting our people on site during the transition to a more permanent system such as swipe cards. As regards the logistical support with respirators, etc. the Major indicated that he was working on the issue and guaranteed us that he would have some replacement system in place before he left on Saturday.

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Lastly, the Major reported that OSHA would be moving its PS-89 respirator operation first thing tomorrow morning and would be set up at their trailer and the Liberty/Church street locations. In anticipation, he said he held back on deliveries today and will restock both locations first thing in the morning. When asked about the pier 36 storage location, he said he didn't know if our materials would have to be moved. He said control would be taken over by DCAS and it's possible they may want to move it to their Queens warehouse but, he doesn't know that for sure. He said he would stay in touch with Norman on the issue.

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11/2/01 - Safety Meeting - 6:00 pm (last one)

Kelly discussed the incident at the site today with the firemen and the Mayor's comments that followed at the press conference. It was an unfortunate incident but it brought attention to the fact that the Mayor and all involved are taking safety at the site very seriously.

Bob Adams agreed. He mentioned Bechtel might be returning to the site but not in the same capacity. If they return they would be more like construction managers/ consultants. Liberty Mutual is staying and is picking up the pace.

Kelly handed out a 5-page report with thermal imaging. One map, thermal signatures, shows the hot spots. The second map, gas detection, shows ammonia and Freon gas clouds.

Kelly also handed out a Notice by the NYC - DOH that requires employees must complete a respirator fit test and orientation in order to comply with 1910.134. The flyer gives the dates, times and location (along with a map) where employees can receive free fit testing and orientation.

Army Corp. of Engineers had two handouts from Staten Island. They have conducted almost 4,600 fit tests to date. They requested 5 additional wash stations. EPA has extra and will hook them up.

The debris arriving at S.I. is over saturated. They understand the problem with dust suppression but they need to cut back on the amount of water that they are putting on the debris before shipping it. Paul Bennett, DEC said the contractors are not using a fog nozzle and that is part of the problem. EPA is following up on this.

Liberty Mutual reported on the 8:00 am meeting that Dr. Levine from Mt. Sini spoke at. Although he said some good things, Sam felt he scared people with his comment that workers need to wear respirators any where on the site. He would like him to come back to clarify this statement and define "site".

Liberty mutual plans on having a shop steward meeting 10:00am every Friday. One new safety topic with handouts will be addresses each week. They would like to invite police, fire and DDC to these meetings.

Bob Adams reported they are staying in PS 89 for one more week because of a possible asbestos problem in AmEx. Testing is being done.

Bob hopes to have a safety committee in place by the end of next week. He hopes the safety meetings identify the safety issues and the committee will come up with solutions to abate the conditions. He would also like one group to step up and oversee the dust suppression issue and do monitoring.

Liberty Mutual said one of the biggest problems on the site is enforcement of the safety rules.

191-1

EPA is the lead agency to create and keep the database for sampling results. The dome structure should be up and running by Monday. They would like to faze out of the Vac Truck operation and have one of the city agencies take it over.

✓ Dave's
comment re
OSHA database
dump to
them - 1

Bob Adams reported that OEM would like to see the sprung structure removed. They feel this structure is for the contractors and they are considering this a construction site; therefore the contractors should supply their own facilities. Bob and Kelly both said that this is not just a construction site and will fight to keep the structure open. They talked about different things that it could be used for that would support the entire site not just the contractors.

Major Porr said he has resolved the issue of OSHA being evicted from their new location on Church Street. As of 4:00 pm today OSHA will remain at that location and no one is going to move them. He promised air support if anyone tries to move them. He said his farewells and thanked everyone. His detail ends tomorrow. Phil thanked him on behalf of OSHA for all the help and assistance he has given us.

NYC Housing Police will now be handling credentials and be working out of PS 89 for now.

191-2

Mendelson Richard

From: Mendelson Richard
Sent: Monday, November 05, 2001 5:09 PM
To: Clark Patricia K New York
Subject: Kulick Update - 34

Pat, this is from Bob. Made the changes. Reminder to cc: Berrien then send to ADs, AADS, Regional Staff. Also if changes made save to "O" drive.



wtc34.wpd



talkingpts113.wpd

Tracking:

Recipient

Clark Patricia K New York

Delivery

Delivered: 11/5/01 5:10 PM

192-1

WTC Update 34 - (11/05/01)

External Coordination:

- DDC rep reported the possibility of Bechtel returning to the site as a construction manager/consultant.
- DDC rep reported site Safety and Health Committee will be established by end of this week.
- Liberty Mutual rep identified enforcement of safety rules as one of the biggest problems on the site.
- Liberty Mutual will continue the weekly meeting with union shop stewards which is held every Friday. OSHA, NYPD, FDNY and DDC reps attend.

Press and Public Relations:

- On 11/3 and 11/4/01, *Wall Street Journal*, reporter Queena Kim interviewed RA Clark and A/S Henshaw respectively regarding sampling, jurisdictional and other issues at the WTC site.
- On 11/4/01, CNN reporter Brian Palmer wrote, "The federal Occupational Safety and Health Administration calls it (*WTC site*) "the most dangerous work site in America.".
- OSHA highlighted and RA Clark quoted in *Newsday* article written by reporter Dan Fagin published 11/4/01. (Reference www.newsday.com/news/printedition/newyork/ny-nyair042447746nov04.story)
- Updated Talking Points revised November 3, 2001, (See accompanying file "talkingpts113.wpd")

Risk Assessment/Monitoring:

- Sampling on grappler operators on the rubble pile, and on employees manning truck wash stations revealed trace levels of nitric oxide and nitrogen dioxide. On 10/28/01, 4 area and 5 personal samples were taken for Sulphur dioxide. All results were below OSHA's PEL of 3 ppm. Highest result was a personal sample which revealed 0.4731 ppm. More Sulphur dioxide results are pending.
- Phosgene sampling results are pending.

Safety Team Monitors:

- OSHA Safety teams are monitoring abatement of hazards.

193-1

- OSHA IH sampling teams are auditing worker compliance concerning use of respirators.

Respirator Fit Testing:

- OSHA, MSA through Vallen Occupational Safety and Health, and Operating Engineers continue to conduct quantitative fit testing using porta counts for all workers onsite.
- Army Corps. of Engineers reported that EEG conducted ~ 4,600 qualitative respirator fit tests using irritant smoke to date at Staten Island Landfill. FBI concerned about converting to quantitative fit testing.

Personnel Resource Coordination:

- A formal orientation session was held today for 40 personnel from Regions IV, V, VI, VIII and IX including staff from State Plans: HI, MN, NC and NV.

Equipment Coordination:

- Nothing to report.

General Information:

- Sixteen tiebacks installed in slurry wall south of 2 WTC (Liberty Street), nine are tensioned.
- Demolition of 4WTC initiated.
- Demolition of Vista Hotel to begin tomorrow.

193-2

WTC Update 35 - (11/07/01)

External Coordination:

- Site is scheduled to close for Veteran's Day, from 8:00am Monday, 11/12/01 through 8:00am Tuesday, 11/13/01.
- Today, OSHA conducted our weekly meeting with primes, subs, DDC, BTEA, BCTC, MSA and Liberty Mutual reps to present/discuss the following:
 1. Status of quantitative fit testing
 2. Risk Assessment Teams identifying emerging hazards such as below grade work, exposures requiring higher levels of respiratory protection, biological monitoring and confined space entry.
 3. PPE compliance statistics
 4. Safety hazard trend update
 5. Training Committee
- OSHA reps discussed the development of a formal partnership agreement with reps from BTEA and BCTC. Similar discussion will occur tomorrow with DDC rep.
- Draft partnership agreement forwarded to AS Henshaw.
- Liberty Mutual is providing 4 staff per each 8 hour shift, 12 daily.

Press and Public Relations:

- Today, Avenel Area Office AD, Bob Kulick was interviewed by Melanie Lefkowitz of *Newsday*, concerning OSHA's role and conditions at Staten Island Landfill.
- RA Clark had a follow-up interview with Eric Lipton of the New York Times on Tuesday, regarding safety trends at the WTC site.

Risk Assessment/Monitoring:

- A personal sample taken on 11/02/01 from an ironworker conducting lance cutting work revealed a lead exposure of ~ 10 times the PEL
- Of 368 air samples taken to monitor worker exposures to dusts, fumes, oxides and other compounds of metals, 25 resulted in over exposures as follows: copper (8), iron oxide (10), lead (5), and cadmium (2). (See accompanying file 11-7.wpd)

Safety Team Monitors:

- Nothing to report.

194-1

Respirator Fit Testing:

- As of 8:00am 11/13/01, all contractors will be responsible for distributing PPE to their workers. OSHA, MSA through Vallen Occupational Safety and Health, and Operating Engineers will continue to conduct quantitative fit testing using porta counts for all workers onsite. OSHA will continue to distribute PPE to city and state workers.

Personnel Resource Coordination:

- Nothing to report.

Equipment Coordination:

- Next week, OSHA will replace three "Gators" with three winterized "Mules". One will be dispatched to Staten Island Landfill.

General Information:

- Nothing to report.

194-2

WTC Update 36 - (11/09/01)

External Coordination:

- RA Clark discussed the development of a formal partnership agreement at WTC site and shared a draft with reps from BTEA, BCTC, DDC, and FDNY. Target launch date, 11/20/01.
- Avenel AD Kulick discussed the development of a formal partnership agreement at Staten Island Landfill with site manager from Army Corps. of Engineers and site safety and health reps from Phillips and Jordan.
- WTC Emergency Project ES&H Plan distributed for review and comments. It is anticipated that a revised plan will be distributed next week
- OSHA reps will meet with reps from DDC, BTEA and BCTC, Monday, 11/12, to discuss structure, function and implementation of the site Safety and Health Committee. Target launch date, 11/20/01.
- Train-the-Trainer sessions for site Orientation training are scheduled to begin next Friday. Worker Orientation training sessions are scheduled to begin on Monday, 11/19.
- OSHA reps attended weekly shop steward meeting today and conducted a presentation concerning air sampling results to date with an emphasis on recent lead sampling results
- Manhattan Area Office received an electronic complaint concerning employees of Miller Environmental, contractor hired by EPA and US Coast Guard to conduct truck and boot wash operations. Items addressing training, PPE etc., were forwarded to EPA and Coast Guard for contractor intervention. As a result of interagency cooperation, Miller returned a satisfactory response in a timely manner.
- OSHA rep participated on today's NRT conference call.

Press and Public Relations:

- *NBC Nightly News* interviewed AS Henshaw and RA Clark at WTC site about safety issues at ground zero. Story line is expected to track with Nov. 8 *New York Times* article.
- *Chicago Tribune* reporter Frank James will interview RA Clark by phone on Nov. 12 about safety and health issues at ground zero. Interview time TBD.
- *Chicago Tribune* reporter Sam Roe called OPA wanting specifics about beryllium testing at the WTC site: number of samples taken, locations, and results. Also asked for status of beryllium bulletin for the dental industry. Informed it remains a work in progress.
- *New York Times* ran an article about safety at ground zero on Nov. 8, based largely on a

195-1

Nov. 6 interview with RA Clark.

- *Newsday* ran an article on safety and health issues at the Staten Island Landfill on Nov. 8, based on a Nov. 7 interview with Avenel Area Office AD Bob Kulick.
- *Wall Street Journal* reporter Queena Kim followed up previous interview on Nov. 8 with questions about contractors filling out OSHA logs and the availability of these logs. RA Clark provided responses, called them to OPA to give reporter. She also asked for numbers of site hazards at WTC during last week of October. Provided.

Risk Assessment/Monitoring:

- Hudson Technologies began below grade freon monitoring yesterday.
- Air monitoring conducted by EEG at Staten Island Landfill for the period 10/27-10/31, for asbestos, metals, silica, and total particulates were below respective PEL's, although traces of Chromium were detected.
- At this morning's safety meeting, EPA reported grab sample results for benzene at 108ppm, 1ppm and 85ppb comparing them to the OSHA PEL. RA Clark clarified that 1 minute grab sample results could not be directly compared to OSHA's 8 hour PEL.

Safety Team Monitors:

- Crane and rigging conditions have improved significantly since the initiation of OSHA's Crane Task Force.
- Safety monitors will soon enter safety hazard trend data on hand held pocket PC's.
- Fall protection continues to be an issue especially for surveyors working on the slurry walls.
- OSHA 200 data is being collected to establish an LWDII rate for the WTC and Staten Island sites.
- DDC requested Port Authority Police Department to establish/distribute a policy to address live ammunition in the debris pile.

Respirator Fit Testing:

- To ensure an efficient fit testing process, contractors and agencies were allotted designated time slots for their staff. Approximately 225 quantitative fit tests are conducted daily.
- Yesterday, signs were set up on site identifying required PPE for given locations.

195-2

Personnel Resource Coordination:

- Region II staff will cover weekend tours. Limited coverage will be provided by Region II staff during Monday's Veteran's Day shutdown.

Equipment Coordination:

- Nothing to report.

General Information:

- The Mayor's Office increased the number of firefighters per shift from 25 to 50.

195-3

11/9/01 – 8AM Safety and Health Meeting:

Bob Adams of DDC reported that the NYC Bldg Dept Crane Inspection Department has five more cranes to inspect. He asked Jin Conway of the Operating Engineers who is allowed to inspect rigging after shock loading. Jim said anybody who is deemed a competent person. Jim said there are licensed riggers by NYC but they are not required. Bob Adams said they need to review the crane owner's manual on this and are working with the operator engineers. Bob said there had been a rigging/socket failure last night and that it would be discussed later but there was no other discussion about it.

The ironworkers asked if vest were needed on the pile. There was a general discussion about it. It was agreed that they need something reflective. Bob Adams said they would get a policy out

Bob Adams explained the new badge (credential) requirements. They will be in effect Tues 11/14 – 8AM. He said access onto the pile (inner zone) would require a pink/peach colored badge. He said DDC would be giving them out. Somebody said this would cause a major jam on Tuesday as nobody was working. Bob said batches of the badges can be obtained and they will be available today. He said the contractor would be responsible for maintaining the list of people who are credentialed. He said the person to contact was Lou Reuda of DDC. OSHA representatives asked how going about getting credentials for the 50 or so people that rotate every week. Bob Adams said OSHA should get a batch and get them back from the people that leave the site. Bob said this procedure was discussed at yesterday's 9AM meeting.

Both Bob Adams and Gary of OEM raise the issue of POVs. Bob stated the policy is no POV in area unless they are delivering equipment supplies. Bob said many of the ppe signs are gone and need to be replaced. The prime contractors indicated that the can post at their bulletin boards and actually have done so.

Bob Adams said DDC and NYFD would do a safety tour of the site later in the day. He and [unclear] of OSHA raised the issue of NYPD using burn barrels. Later the NYPD representative said the guys use the burn barrels because it is cold. He asked that the booths be put up as soon as possible and that would stop the use of burn barrels.

Bob Adams said it looks like the EPA structure/tent/Taj will stay. (Note Battery Park City – a NY State Agency owns the lot. They had been trying to get it removed as they are losing revenue. As of 1pm today it has not been fully resolved but it is 99% sure that the Taj will stay to April 1, 2002. The last issue is that there has to be a responsible agency to ensure that it will be gone by 4/1/02. It will be either EPA or NYC DOH).

Bruce of DDC asked PAPD to get out a live ammo policy out.

196-1

AMEC: Reported that there was a tarp fire. The fire extinguishers were 90 feet away. They are moving them closer to the tarping stations. He said an employee fall getting off the scaffold when the fire occurred. He said that it might have been a seizure as the employee had not taken his medicine for two days and has a history of seizures. They will not for sure until all medical test results are back. He then report the major problem of people being in Building 6 while it was being demolished. He said there were EPA people moving drums in the basement and 2 DDC safety people. EPA rep said they were in the building at direction of PA Police. Bruce of DDC asked for the name of the DDC people. AMEC report continued about people not wearing respirators on the pile. He said the was an NYPD person who told AMEC people not to argue with people with a gun. two DDC safety people who said they did not need them and Nike Burton of DDC who gave them a hard time when he was asked to move his POV. All agreed that there was a need for bad communication. Bruce of DDC said that before entering any building on the site

Tully: Had issue with people going by Bankers Trust Building, which is a restricted area because of the cutting of steel. They reported that the 3 floor of Building 4 gave way.

Teamsters: Had a question on what policy was on drivers staying in/leaving truck when they are being loaded. After long discussion it was decided the contractor rep would decided what was safest for that operation and that the drivers should have all required ppe with them.

NYFD: They are in processing of setting up emergency phone line.

PAPD reported that they would be doing random safety inspections of trucks at Piers 6 and 26. No tickets this time. The problems will be reported to the primes

NYPDESU: They reported that they had a body recovery and were very happy with the contractors help.

NY DOS: Asked that they be notified of roads that should not be plowed and/or deiced. They are having DOT make some raise plow signs.

EPA said that they got benzene readings as follows: 108ppm at South tower, 1 pmm North tower and 85ppb. EPA rep compared the results to the OSHA PEL. Pat Clark of OSHA explained you couldn't do that, as the EPA sample is a 1-minute grab not an 8-hour sample.

196-2

11/11/01

10:30A Mtg

EX7

- New pink cred. for inner perimeter
- Holiday change tomorrow - Safety only

EX7

- Queen fit test

- ↳ Will need tags for us too. 1 will count for R2.
- Other req'd ppl will need to email prior to arrival their fit test records.

↳ Also need tag stickers (will say our session is equivalent).

- 3M to cover Church/Liberty?

- Nam to address 70' (storage) trlr.

- Gate team OPE survey

- Partnership - need to fix truck, check w/ Bob Adams

- Database - Phil^M to work w/ EX7 getting data inputted.

LWDIP - need Jolly. subs for Anec?

Many F/A (unrecorded)

Need man-hours from DDC

1 to come need for more analysis.

→

QA of data?

- Perimeter 1185 - union concern (S44)

W/H concern.

- Learn to have S&H committee only tomorrow w/DDC, AT&A, B&C

- Bedtel return in some capacity. Bruce confirms. Exact role unknown.

- Tray - I-the-Ten this Friday. I'll attend w/ Lou. 1 will observe reg.

- Wed contractors' mtg. Also need to plan for following wk Wed. MSA will be shut tomorrow - then Wed PM station → Fri.

197-1

County is this week for risk assessment. To include 7
on busy w/ new & keeply outreach.

- Recalling try Thu
- BTEA Safety Conference

Mendelson Richard

From: Clark Patricia K New York
Sent: Wednesday, November 14, 2001 6:33 PM
To:

2x7

Subject: FW: Kulick Update # 37

-----Original Message-----

From: Clark Patricia K New York
Sent: Wednesday, November 14, 2001 6:15 PM
To: Henshaw John; Layne Raymond (Davis); Zettler Berrien-OSHA; Friedman Bonnie-OSHA
Cc: Kulick Robert-OSHA
Subject: FW: Kulick Update # 37

-----Original Message-----



11-14.wpd



wtc37.wpd

198-1

OSHA SAMPLING RESULTS SUMMARY AS OF 11/14

- Asbestos:** A total of 652 air monitoring samples for asbestos have been taken. From 9/13 -9/21, 177 samples were taken in the financial district. They were taken on OSHA personnel as they walked within certain predetermined zones. Results revealed asbestos concentrations ranging from ND (none detected) to .037 f/cc., well below OSHA's permissible exposure limit (PEL) of .1 f/cc.
- After 9/21, sampling focused on the rubble pile and those workers working on or immediately next to it. 63 of the samples analyzed exceeded OSHA's limit via PCM analysis. However, upon further analysis using discriminating counting methods and/or TEM analysis, the number of asbestos fibers found dropped dramatically to below detectable levels or well below .1 f/cc.
- Carbon Monoxide:** A total of 47 personal samples of workers on the rubble pile showed results ranging from 1 ppm to 34 ppm which are well below the OSHA 50 ppm permissible exposure limit.
- Noise:** OSHA has been conducting noise monitoring in the rubble pile. Twelve personal samples have been conducted on employees performing (or working near) various operations such as jack hammering. Employee's exposure to the noise range from 80.6 dBA to 89 dBA. OSHA's permissible noise exposure for construction is 90 dBA.
- Respirable Silica:** The overwhelming majority of the 235 silica samples show no detectable levels of airborne silica. The highest sample result was approximately twice the OSHA limit, whereas the next highest level was less than half of this limit. Both of these levels were found on personnel working in the rubble pile; an area where OSHA continues to encourage the use of respiratory protection.
- Volatile Organic Compounds:** OSHA has taken 366 samples for (VOCs) such as acetaldehyde, acrolein, acrylonitrile, benzene, 2-butanone, carbofurans, chlorodiphenyl (PCB), ethyl benzene, formaldehyde, Freon R-22 (chlorodifluoromethane), hexone, isocyanates (e.g. MDI, TDI), perchloroethylene, phosgene, styrene, toluene, 1-3 butadiene, trichloroethylene, vinyl chloride, and xylene. Screening samples initially showed elevated levels of some organic chemicals resulting from the fires burning in the rubble pile. Subsequent personal and area samples show worker exposure levels to be below OSHA limits. However, one personal sample result for benzene was found to be at the 8-hr. OSHA Allowable Limit concentration of 1 ppm. This was found on a backhoe operator moving debris. See information below for polynuclear aromatics, Freon R-22, phosgene and dioxin.
- Oxides of Nitrogen/
Sulfur:** Sampling on grappeler operators on the rubble pile, and on employees manning truck wash stations revealed trace levels of nitric oxide and nitrogen dioxide.

199-1

SO₂ personal and area results were found to be below OSHA limits.

Metals:

As of 11/13/01 OSHA has taken 429 air samples to monitor worker exposures to dusts, fumes, oxides, and other compounds of metals such as antimony, beryllium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, vanadium, zinc, cadmium, magnesium, arsenic, and mercury. Results from these samples are generally well below the applicable OSHA limits. However, torch cutting and burning structural steel at the rubble pile have resulted in instances of overexposures as follows: copper (6); iron oxide (7); lead (7); and cadmium (2). Accordingly, OSHA is recommending that workers engaged in these operations wear appropriate respiratory protection.

Ionizing Radiation: A survey of the rubble pile was conducted on 10/22-10/23 to check for latent radiation with particular attention to alpha radiation. Preliminary results show no elevated levels.

Dioxins:

OSHA has taken samples for dioxin and these samples were analyzed by EPA. One initial sample, representing exposure directly on the pile, showed elevated levels of dioxins when compared to ambient background levels. This value was comparable to the levels found by EPA sampling. The dioxins at this location are being emitted from the on-going rubble fire. Additional sampling was conducted around the perimeter of the pile and revealed levels that were considerably lower than those on the rubble pile. Dioxins are considered collectively as suspect human carcinogens. OSHA has taken additional samples which have all been forwarded for analysis. OSHA does not have a worker standard for dioxins. OSHA is coordinating with EPA, and the Salt Lake City Analytical Laboratory to fully assess the risk posed by the elevated levels of dioxins.

**Polynuclear
Aromatic
Hydrocarbons:**

OSHA has taken 56 samples. Sample results to date have identified several elevated samples, four of which reached or exceeded OSHA's coal tar pitch volatile PEL of 0.2mg/m³. These personal samples were taken on the pile on iron workers and grappeler operators. OSHA continues to strongly recommend the use of respiratory protection when working on the rubble pile.

**Freon R-22,
Hydrogen Fluoride
& Phosgene:**

OSHA has taken 29 samples for Freon R-22 (chlorodifluoromethane). Sample results received reveal non-detectable airborne levels. In response to information about exposure to the decomposition by-products of Freon R-22 used in the air conditioning systems of WTC towers, sampling for hydrofluoric acid (HF) had been conducted. Results for HF revealed non-detectable levels. Sample results for phosgene show non-detectable levels.

199-2

WTC Update 37 - (11/14/01)

External Coordination:

- *Daily News* and DDC reported today that Bechtel will return to the site replacing DDC as the construction manager. Contract details are being finalized.
- Today, OSHA conducted weekly meeting with primes, subs, DDC, FDNY and Liberty Mutual reps to present/discuss the following:
 1. Partnership Agreement
 2. Status of Quantitative Fit Testing
 3. PPE Compliance Rates
 4. Safety Monitoring Hazard Trends
 5. Training Committee Update
 6. Calculation of Site LWDII Rates
- OSHA reps continue to discuss the development of a formal partnership agreement at WTC site with reps from BTEA, BCTC, DDC, FDNY and the primes. Revised draft copies were distributed to reps from BTEA, BCTC, FDNY, DDC and the prime contractors. Other agencies recognized by the agreement were provided draft copies today at this morning's safety meeting. Received positive confirmation from all signatories except AMEC and Bovis. Both are expected to participate.
- OSHA reps continue to discuss the development of a formal partnership agreement at Staten Island Landfill with site manager from Army Corps. of Engineers, site safety and health reps from Phillips and Jordan and EPA.
- OSHA reps met Monday with reps from DDC, BTEA and BCTC, to discuss structure, function and implementation of the site labor/management Safety and Health Committee. Discussion will continue tomorrow with all parties to finalize.
- Orientation train-the-trainer sessions will be held on Monday, 11/19/01. Training for supervisors and foreman will begin Tuesday, 11/20/01. Training for workers to begin on Friday, 11/23/01.
- The site will be open on Thanksgiving for recovery operations only. FDNY reported that the recovery unit has been increased from 50 to 65 fire/police.

Press and Public Relations:

- Sam Roe from the *Chicago Tribune* asked the NO for data on beryllium testing at WTC on Nov. 9. Sampling Coordinator, Bob Garvey, provided sampling results (all non-detected) forwarded to Bill Wright at NO on Nov. 13. Bill will not provide data directly but will talk reporter through it.

200-1

- James Meadow from the *Denver Rocky Mountain News* will interview IH ' the NY RO on Nov. 15 at 4:30pm. Bob Garvey will discuss talking points with
- Coordinated release of 12 news releases on Region II area office support (written by John Chavez, OPA Boston), through Senora Walton, Region II PAO.
- Queena Kim from *Wall Street Journal* called NO on Nov. 13 to clarify final points. NO provided talking points to Operating Engineers to address.
- Eric Lipton from the *New York Times* wants to do a follow up on his previous story focusing on OSHA engineers supporting Bovis with JHAs concerning hot and heavy steel, etc.. Mohammed Ayoub will talk to reporter on background; RA Pat Clark will talk afterwards on the record. Interview conducted today at 5:30 pm.
- Mark Deasy, *Ketchum PR*, in Pittsburg called on behalf of Mine Safety Appliances (MSA) regarding a partnership with OSHA, DOH, MSA and its suppliers regarding respirator fit testing. Coordinating response with RA Clark and Bonnie Friedman in the NO.
- Donna Miles coordinating DOL Photographer trip to NY on Nov. 19-20 to photograph OSHA support at the site and partnership event.

Risk Assessment/Monitoring:

- Additional sampling for dioxins was conducted around the perimeter of the pile and revealed levels that were considerably lower than those on the rubble pile. OSHA is coordinating with EPA, and the Salt Lake City Analytical Laboratory to fully assess the risk posed by the elevated levels of dioxins. (See accompanying OSHA Sampling Summary file:11-14.wpd)
- Liberty Mutual indicated a need for, and they will be placing at least 3 additional ambient air monitoring stations for particulates at strategic locations around the site.

Safety Team Monitors:

- Fall protection continues to be an issue especially for surveyors working on the slurry walls. Anchor bolts and tag lines have been installed in the Jersey barriers.
- It was reported a grappler machine in the Bovis quadrant dropped 7 feet through a void at 4 WTC. No one was injured and the machine was not damaged. Engineers are reviewing plans for the area.
- Tully reported another grappler accident in which the debris pile dropped out from under the machine. The machine and the operator dropped ~ 15 feet. Although the operator was not injured, an iron worker who was not in the zone of the grappler, received 10-12 stitches after falling while running from the collapse area.

200-2

- A grappler operator in the AMEC quadrant suffered minor injuries today when a piece of debris struck his cab windshield.
- It was reported that someone was hospitalized yesterday after being struck by a gator.
- The safety protocol for ammunition handling will be released tomorrow.
- DDC will be releasing weekly safety bulletins beginning this week. The first three bulletins will address PPE requirements, substance abuse and the new emergency phone number.

Respirator Fit Testing:

- OSHA reps announced yesterday that PPE will no longer be provided to contractor employees other than initial fit testing and hard hat that accompanies fit test. Site S&H plan requires contractors to provide PPE and ensure its proper use. OSHA will continue to distribute to FDNY and other federal/city/state agencies.

Personnel Resource Coordination:

- A formal orientation session was held Monday for 37 personnel from Regions III, V, VII, VIII, including staff from State Plans: MN, and IN who are assisting Region II staff this week.

Equipment Coordination:

- One of three winterized "mule" vehicles that will replace "gators" is expected to be delivered this week. The remaining two are expected within the next two weeks.

General Information:

- Port Authority reported that last week they conducted non-enforcement commercial truck inspections finding 57 violations of which 7 were serious enough to remove the vehicles from service. They also announced that in the near future they will start conducting full enforcement inspections and will levy fines which may be costly.
- 4 WTC is demolished to grade. Demolition of 6 WTC is under way.
- Safety meetings will no longer be held at PS 89. As of Monday, 11/19/01, meetings will resume in the AMEX building adjacent to the site.

200-3

8 AM Safety Meeting
11/15/01

Bob Adams announced that DDC will be moving to the AMEX building this weekend and expect to be operational at the new location on Monday, 11/19/01 on the 26th floor. Monday's safety meeting will be at that location and it will be a short meeting. He said the future time and days of the meeting may change due to the overlap with 9AM IC meeting. People will need to sign in and get visitor pass to get in Amex building. He said there was no asbestos issue in the building. He was asked if the sprinklers in that building are working. Chief Hayden of FDNY said they are working in that section.

Bob gave a map that showed locations where heavy equipment is to be excluded. Bill Cote of DDC asked him what is considered heavy equipment. Bob said grapplers and cranes. Bill asked what about water trucks and fire trucks. Bob said he thought so but there was no conclusion to this discussion. Kelly McKinney of DOH asked if there are signs marking these exclusion zones. Bob said he did not think there were any. They agreed there should be some.

Bob indicated that they were still trying to determine site and individual LWDI records. There was a discussion about the DMAT numbers. Bob explained they count all treatment even if not job related. He said that these cases are not all OSHA recordables. The DMAT numbers are currently reported at the IC meeting and have shown up in the press.

Bob said the NY City Building Department 's crane department had finished their inspections and had given him a list of cranes that passed. He said they will be submitting a narrative report soon, and they will inspect any new cranes that come onto the site.

Bob discussed open burning in barrels by PD. Bob said sheds are being built and they need to find out if they can plug into streetlights for heaters. He said they needed to find out from Con-Ed and Battery Park City if they could do this. Maryann from OEM said she would check

The safety-training program was discussed and Bob advised that the train-the-trainer session was going to be held Monday with time and location to be determined. There was a discussion about who will be doing the training and who will be trained. It was explained that the trainers are from the Center for Workers Rights and the Uniform services. There would not be a need for trainers from the prime contractors. The training for managers does not require that all managers be there, it is an overview so that they know what is going on. They hope to do the managers Tuesday and the workers on Wed and Friday.

Bob said that the surveyors now have harnesses and have been trained. The tag lines have been installed.

Bob Adams said what you see in the newspapers is pretty much correct regarding Bechtel coming back. to their safety.

201-2

WTC Emergency Project - Safety Meeting Agenda
11/15/2001

Action Items

Item #	Description	Action Needed	Assigned to	Due	Completed
1	Schedule of Safety Meetings - how many, when and what days	Will continue 5 days per week until safety committee established		11/5/2001	Closed
2	Establishment of the safety committee	Format for committees needed	Rottner / Rabovsky	11/13/2001	
3	Incident reporting - what is an incident, requirements and timing	Reviewed at 11/5/01 meeting	Rottner	11/5/2001	Closed
4	Near miss incident - Manbasket and compressed gas cylinder incident	Investigation needed	Bovis checking		Closed
5	Department of Buildings Crane report due	List of inspected	DOB	11/13/2001	
6	Coordination of Injury data collection	on-going	OSHA / Liberty / DDC / Primes	11/13/2001	
7	Coordination of DDC and Uniform Services safety efforts - Names and contact numbers of safety officers needed - DDC attending 0700 / 1900 meetings at West Cmd.	Fire radio provided - DDC safety will communicate directly	DDC / Uniform services	11/8/2001	Closed
8	FDNY must be notified 24 hours in advance for burning and cutting - call 100 Duane Street	Fax to 646-613-8406	Primes / FDNY		Closed
9	Fire barrels being used by NYPD	Shelters to be built - PAPD / NYPD / OEM working on design - DDC / FDNY assessing use of salamanders	DDC / Uniform services	11/16/2001	
10	Orientation training program kick-off	Extended start-up date	DDC / Liberty Mutual / BTEA / IOEU	11/19/2001	
11	Manual revision 1 underway - need any further comments by 11/10/01	No further comments - revision underway	All	11/24/2001	
12	Fall protection needs to be improved - more fall protection issues being identified	100% fall protection	Primes / Liberty Mutual		

WTC Emergency Project - Safety Meeting Agenda
11/15/2001

Action Items

Item #	Description	Action Needed	Assigned to	Due	Completed
13	Personnel exiting vehicles while on pile	PPE required while out of vehicles - only get out of the cab as directed by spotter - written policy needed?	Primes/ Liberty Mutual	11/19/2001	Closed
14	OSHA to provide more specific task information on IH sampling	on-going	OSHA		Closed
15	Signs for PPE needed	Still needed for new inner perimeter	DDC / Primes	11/19/2001	
16	Shock loading of cranes	Meeting to be held today to discuss action	Liberty Mutual	11/8/2001	Closed
17	Protocols needed for ammunition and site-wide evacuation	Draft developed	DDC / PAPD	11/17/2001	
18	Emergency number	212-747-8193 operational	FDNY / OEM	11/13/2001	Closed
19	Ambient air monitoring locations adequate	Review and recommend new locations based on changing site - in process	Liberty Mutual / EPA	11/17/2001	
20	New access badges / procedures for inner perimeter	Starts 11/13/01 at 0700	DDC	11/13/2001	Closed
21	PM of the flatbeds	Trailer floor boards need repair	Primes		
22	Winterization of dust suppression operations	L. Rueda coordinating meeting	DSNY / EPA / DDC		
23	Unstable work Zones	New map showing areas off limits to heavy equipment	Primes		

Regular Reports

202-3-
WTC Emergency Project - Safety Meeting Agenda
11/15/2001

Action Items

Item #	Description	Action Needed	Assigned to	Due	Completed
1	Liberty Mutual Update - status of critical safety findings	on-going	Rabovsky		
2	OSHA update	on-going	OSHA		
3	Contractor reports	on-going	Primes		
4	Uniform services safety reports - FDNY/NYPD/PAPD	on-going	FDNY / NYPD / PAPD		
5	Dust Suppression Report	on-going	Primes		
6	Injury Reports	on-going	Primes / Agencies		

Clark Patricia K New York

From: Ricca, Louis [louis.ricca@osha.gov]
Sent: Wednesday, November 14, 2001 12:01 PM
To: Clark, Patricia-K. (New York)
Cc: Gillen, Gil; Kenny, Laura; Mendelson, Richard; Rastelli, Arthur; Caldarelli, John; DeLeys, Gordon; Cortez, Diana E; Jerome, Edward; Kaplan, Steve; 'phillip.peist@osha.gov'; Zoldan, Efraim
Subject: 11-14-01 8 & 9 AM meetings

8 AM Safety Meeting
11/14/01

Bob Adams announced that this will be DDC's last week in IS-89. They will be moving to the AMEX building this weekend and expect to be operational at the new location on Monday, 11/19/01 on the 26th floor. Unless told otherwise, Monday's safety meeting will be at that location.

The safety committee formulation apparently hit some snags but he expects everything to be worked out and the committee to begin meeting sometime next week.

Bob indicated that we were still trying to determine site and individual LWDI records and that there was some talk about possibly setting up some type of incentive program. Kevin Brennan reported that he was making progress on getting the man hours and other information and hoped to be able to calculate the numbers later today.

Again discussed the problem of open burning in barrels by PD. It was estimated that there are about 10-12 such locations around the site and the contractors agreed to be responsible for those in these areas and build huts for the area that can then be provided with electricity for lights and heat.

The safety training program was discussed and Bruce Rottner advised that the train-the-trainer session was being postponed until Monday due to some logistical problems. Also, he stated he would follow-up on, and advise us, where the session will be held given that we may not have access to the IS-89 auditorium on that Monday and successive days as originally planned.

Fall protection issues are still present for the surveyors although tag lines have been installed. DDC is following up on this item.

There will be weekly safety bulletins issued beginning this week which cover PPE requirements, substance abuse and the new emergency phone number 212-747-9193. Lou Ricca suggested that the next time they change credentials, they should prominently display the emergency number on it so people will always have it available. PPE requirement signs are also being made up and will be posted in appropriate locations around the site.

Liberty Mutual indicated a need for, and they will be placing, at least 3 additional ambient air monitoring stations for particulates to be placed at strategic locations around the site.

Liberty Mutual talked about the problem with wrecking balls being used as pendulums to bring down structures. They said the demo plan does not allow for this. There was an incident where they were using the ball, swinging it within the columns at a lower level and the upper level came down on the rigging. Only the quick thinking of the operator, he released the cable immediately, kept the entire boom from possibly being toppled over.

203-1

WTC-6

WTC-5

1 1/2" Lobby
ROOF@ B-2

WTC-1

REFRIG
PLANT
ROOF@ B-2

1 1/2" SUBWAY

UNSTABLE
UNDER GROUND
NO HEAVY EQUIPMENT
NO EXCAVATION

WTC-4

VISTA
WTC-3

WTC-2

1 1/2" TUBE &
SLURRY
PANELS
28-42

CHURCH ST

205-1

Mendelson Richard

From: Clark Patricia K New York
Sent: Friday, November 16, 2001 6:39 PM
To: Gillen Gil; Kenny Laura; Kulick, Robert (AV); richard mendelson; Zoldan Efraim; /

EX 7

Subject: FW: WTC Update 38

-----Original Message-----

From: Clark Patricia K New York
Sent: Friday, November 16, 2001 6:38 PM
To: Henshaw John; Layne Raymond (Davis); Friedman Bonnie-OSHA; Zettler Berrien-OSHA
Cc: Kulick Robert-OSHA
Subject: WTC Update 38



wtc38.wpd

206-1 ✓

WTC Update 38 - (11/16/01)

External Coordination:

- Formal partnership agreement discussions continue. DDC, FDNY, BCTC, BTEA and all primes have agreed to sign the document. General Contractors Association (GCA) and Contractors Association of Greater New York (CAGNY) of which the primes are members have also requested to participate and have agreed to sign the document. Final draft copies will be distributed Monday, 11/19/01.
- OSHA reps continue to discuss the development of a formal partnership agreement at Staten Island Landfill.
- OSHA reps met yesterday with reps from DDC, BTEA and BCTC, to discuss structure, function and implementation of the site labor/management Safety and Health Committee. Agreement was reached on structure and staffing. Discussions will continue concerning implementation. The designated Steering Committee of which OSHA is a member, will have its first meeting on Monday, 11/19/01.
- Orientation train-the-trainer sessions will be held on Monday, 11/19/01. Training for supervisors and foreman will be conducted Tuesday, 11/20/01. Training for workers to begin on Wednesday, 11/21/01 and continue Friday, 11/23/01.

Press and Public Relations:

- Coordination with press representatives from partnership members continues.
- Nov. 15, James Meadow, feature writer for the *Denver Rocky Mountain News*, interviewed Terry Mitton Terry about sampling efforts at the WTC site.
- Donna Miles coordinated with MSA on an MSA press release about the company's role in respirator fit testing. Provided AS Henshaw quote and corrected errors in draft release.
- Donna Miles coordinated Department of Labor photographer Shawn Moore visit to Region II, Nov. 19-20. Photographer will visit WTC site with Gil Gillen on 11/19 and will cover partnership signing ceremony 11/20.

Risk Assessment/Monitoring:

- OSHA reps informed attendees at today's safety meeting that there was a silica overexposure as a result of OSHA sampling a worker drilling/boring by the slurry wall in Bovis area. The level was reported as 9 times the OSHA PEL. Assistance was requested in getting workers to cooperate with further sampling.

207-1

Safety Team Monitors:

- Surveyors working on the slurry walls are now wearing fall protection harnesses and are tying off to tag lines.
- Due to recent incidents of machinery falling through voids in the debris, a map was distributed today delineating areas where heavy equipment is prohibited. Soon signs will also be posted in these areas.
- New York City Buildings Department Division of Cranes and Derricks completed their inspections of all cranes on site. They will be distributing a narrative report soon.
- Bovis reported that some concrete fell from the foundation wall at Vista but no one was injured.
- There will be an 11:00am meeting tomorrow with US Customs on ammunition and weapons protocol. In the interim, NYPD and PAPD are to be notified when weapons or ammo are discovered.
- The Port Authority will be erecting weatherproof bulletin boards on site for DDC weekly safety bulletins.

Respirator Fit Testing:

- 12/1/01 is projected to be the date when the "no fit test - no work rule" goes into effect for the exclusion zone on the rubble pile.

Personnel Resource Coordination:

- Nothing to report.

Equipment Coordination:

- Nothing to report.

General Information:

- There are now 45 tiebacks in the slurry wall of which 36 are tensioned.

207-2

Mendelson Richard

From: Peist, Philip [philip.peist@osha.gov]
Sent: Friday, November 16, 2001 1:31 PM
To:

EX 7

Subject: 11/16 - 8 AM meeting Notes

11/16 - 8AM::

Bruce of DDC chaired the meeting:

He announced that DDC and NYFD are moving to the 30th floor of the AMEX building at 5PM today. He said all of the meeting would be held on the 26th floor. He said everybody would have to use the Freight Elevator to get to the 26th floor. He explained the need to sign in at AMEX. He said there maybe long line on Monday and asked that everybody try to come early for Monday's 8AM meeting.

EX 5

He gave out a handout that listed the members of the safety committee. He asked that the various agencies, including OSHA, let him know by the end of the day, which person will be their representative on the safety committee. (Gil and Bob Garvey said they would speak to Pat and get back to DDC). He went over the upcoming training schedule. The trainer-the-trainer session will be on Monday - 10-3 on the 26th floor of the AMEX building.

Bruce said that yesterday NYPD and PAPD entered Building 6, while active demolition work was going on; specifically the wrecking ball was being used. He said they were there to retrieve something for US Customs (Note at 9AM meeting it was reported that it was a safe). There was a discussion among the parties as to how this happened. PAPD said they tried calling DDC as required but could not reach them. After more discussion both DDC and FDNY stressed that except for life threatening situations, entries need twenty-four notice to FDNY and DDC. Life threatening situation still need to go through DDC and NYFD and a case-by-case decision will be made to allow entry. He said only DDC could stop work, except for imminent danger situations.

He said there was a mistake on ppe policy that identified West Street as respirator zone. He said that would be corrected.

OSHA:

Gil report that there was a Silica overexposure. It was a worker that was drilling/boring by the Slurry Wall in Bovis area. She said the levels were 9 times the PEL. She asked that the contractors to help getting the workers to wear sampling pumps

208-1

BOVIS: Said the PD sheds are coming. Bruce of DDC said that NYPD was putting Kerosene on a burn barrel and that another one was piled so high, the flames almost went onto adjacent scaffold. The NY National Guard asked how they get sheds for their people. Bruce said that each prime contractor was to supply the needs in their area. He was asked if the "electric" supply for the sheds was settled (can they use streetlights for power). He said he would look in to it. (Note at the 9AM meeting he said it was settled)

FDNY:

Stated the sprinklers in the AMEX building are working. He gave out the Incident Action Plan. DDC asked what the status was of the NYFD review of the confined space program. The Chief said he would look in to it.

EPA:

The Taj is open! The Taj is open! The smaller was down stations will be closing shortly.

NYDEC:

They observed trucks going out the wrong way.

Teamsters Union:

Asked about status of the winterizing of wash stations. DDC said it is being worked on

Carpenters Union:

Asked if 90 Church is part of this project as he has concerns about the mold removal project being done there. Bruce told him it was not part of WTC but he can contact NYC DOH with concerns.

Port Johns: Somebody asked about the removal of them. OEM said there was a miscommunication and that there would be a lot more on site this afternoon.

Mendelson Richard

From: Peist, Philip [philip.peist@osha.gov]
Sent: Friday, November 16, 2001 1:57 PM
To:

EX7

Cc:
Subject: 11/16 - 9AM meeting notes

11/16/01 - 9AM - IC/Contractor Meeting: Bill Cote of DDC chaired the meeting:

EX5

- 1 - They will test the GPS truck tracking system on Sunday.
- 2 - AMEX building is ready to go. (Note there was a discussion between Bill Cote of DDC and somebody from AMEC (not AMEX) about a letter from AMEX about environmental concerns. Bill Cote said these concerns had been answered and there were no concerns. AMEC representative request a meeting. Bill Cote said he would meet later with AMEC and discuss.
- 3 - The scaffold at 90 West is OK.
- 4 - They now have installed 45 tiebacks and tensioned 36. (Slurry Wall)
- 5 - Noted the map of that showed heavy equipment exclusion zone. Tully representative stated that they have removed debris around East Slurry Wall. They will build a platform at 292 elevations and install tiebacks.
- 6 - Bankers Trust Building work is ongoing.
- 7 - There will be an 11 AM meeting with US Customs on Ammunition Protocol.
- 8 - Dewatering operation of b6 level has gone slower than anticipated should have access by late Sunday.
- 9 - Turn over of 30 West Broadway Building to CUNY will not be until the middle of December because there is a problem with the elevator.
- 13 - Bill Cote asked that the contractors provide a list of activities that they are doing on Thanksgiving by next Tuesday. He said they should be able to say what is running on Thanksgiving by Wednesday morning.
- 14 - There will be a meeting on Monday about cold weather issues relating to dust suppression.
- 17 - The concept plan for ramps to be used for access to the lower levels was approved yesterday. They are awaiting drawing with actual slopes before going ahead with actually building the ramps. PAPD said there about 1,000 cars still down there. They can tow them out or use grapplers depending on what you want. DDC said it would be decided on a case-by-case basis.
- 18 - The food service will stop 12/1/01 as it is hurting local businesses. Bill Cote said they might contract out and use the EPA tent/Taj as some sort of paid food location. The Salvation Army said they can buy food from local providers and then provided free. OEM said they would get back to them.

New Issues:

There was a long discussion about NYPD and PAPD entering #6 while there was ongoing wrecking ball operation going on. PAPD said they did contact DDC and told of them of their need to get into building before dark. They were retrieving a safe for US Customs. They thought that this notification was enough. Bruce of DDC said there was a break down in communication. Both DDC and FDNY made it clear that barring an emergency 24 hours written notice must be given to DDC and FDNY before entry. In an emergency only they can authorize entry.

209-1

DDC will meet with the primes about trucking cost, as there is a wide variance in pricing. They want the primes to do an "as built schedule" so as to have a record of who did what when. Bill Cote expressed concerns about the pace of building 5. They asked Tully how many cranes were to be used per the demo plan. They said 3 but there are only two being used now. Bill Cote told the Tully representative to speak to his sub-contractor about that.

AMEC: Announced that they laid off 40 ironworkers and that they have contracted out the ironwork to Koch

EPA: Announced the opening of the Sprung Structure/Taj. Somebody asked what is it for. Eric of EPA explained it had showers, boot wash and vacuum cleaners

Red Cross: Said they are planning a special Thanksgiving meal but they need the site staffing level to plan it out.

1920

My Fri 11/16 1:30 P

S&H Committee

- Steady comm. (lt mtg. Mon 2P (P.L). - meet monthly.
- Leadership oversight - weekly mtg.
- CMR (mtg - once a wk) - OSHA @ ex officio? - weekly
- Agency - weekly mtg.

Continue S&H mtg 2x wk (Tu & Th.) @ 8A.

Stopped pairing Soldiers w/Lt. First asked Pat/Bol about this. 1) only
Still on pat. 2) Takes too long to get out the door.

Norm > PD requesting blue ar ten ppl - n. exempt agencies

Discussed kindly off peak passes

Burning barrels → Dor to plv barrels?

Thurs prog. - 10A Monday T-He-Ter.

Surveyors now tied off

Git Today's 8A - Issue blue FDNY/PAPD/NYPD rushing into GWTC during demo

Only DDC can stop job for I.D.

Jeff Taka - wants to lower prot. factor for greener operators. Norm gets.

Simple case of combined Blue/OU/AA. Altering Scenarios. [Not approved
Same level].

Raised overexposure & Si re: the last drilling.

Discussed how time getting ppl to wear pumps. Pumps will correct.

Partnership -

EX 7

+4 for boost

- Git to distribute full copy of partnership Mon. AM.
- Still need CAGNY & DDC signature.
- Media advising & then release being watered @ 120

210-1

ITEM	DESCRIPTION	ACTION BY	STATUS
1	INSTALLATION OF GPS SYSTEM HAS STARTED ON SOME TRUCKS. 12 BOVIS TRUCKS ARE INSTALLED, 12 DOT TRUCKS AND 33 PRIVATE TRUCKS.	DDC	OPEN
2	LZA - T/T WILL DO ONE FINAL INSPECTION OF THE AMEX BUILDING, TO CONFIRM THAT ALL WORK HAS BEEN COMPLETED	LZA - T/T	OPEN
3	LZA - T/T HAS ISSUED A LIST OF BUILDINGS REQUIRING WORK. THERE IS STILL SOME WORK REMAINING WITH BOVIS - 90 WEST STREET, SCAFFOLDING.	4 PRIMES	OPEN
4	36 TIE-BACKS ARE INSTALLED. THERE IS TENSION ON 25 TIE-BACKS.	BOVIS	OPEN
5	WORK ON EAST SLURRY WALL EXPOSURE HAS BEGUN. TULLY IS WORKING THE SOUTH END AND BOVIS IS WORKING THE CENTER.	BOVIS/TULLY	OPEN
6	DEBRIS REMOVAL AND SHORING OF BANKERS TRUST HAS BEGUN. EXPECTED COMPLETION 12/1. BRACING AND SHORING HAS BEGUN. WORKING W/ ATLANTIC HEYDT THRU BOVIS. INSTALLATION OF PLATFORM SHOULD BEGIN 11/14.	BOVIS/TULLY	OPEN
7	BECHTEL AND BOB ADAMS HAS ISSUED A DRAFT SAFETY PROTOCOL ON AMMUNITION. WAITING FOR PORT AUTHORITY AND CUSTOMS HOUSE TO REVIEW IT. FINAL PROTOCOL TO BE ISSUED BY THE END OF 11/14.	BECHTEL/DDC	OPEN
8	SAMPLES WERE TAKEN OF B6 LEVEL WATER. BOB ADAMS WORKING ON PROTOCOL TO ENTER BELOW GRADE LEVELS SAFELY. BOVIS WILL TAKE FREON ABATEMENT UNDER THEIR CONTRACT. WAITING FOR THE PROPOSAL. B6 LEVEL WATER HAS LOWERED BY 3 FT. ANTICIPATED ACCESS BY THE WEEKEND.	DDC/BECHTEL	OPEN
9	SIDEWALK BRIDGE ON THE WEST SIDE OF 30 WEST BROADWAY HAS BEEN INSTALLED. SCAFFOLD, SHORING AND NETTING TO BE DONE. TURNER EXPECTS TO TURN BLDG. OVER TO CUNY BY THE END OF NOVEMBER. CUNY WILL DO ALL WINTER PROTECTION WORK. CUNY TO START DRAIN DOWN ASAP.	TURNER	ONGOING
10	EACH PRIME SHOULD LOOK AT THEIR TRUCKING OPERATION AND GIVE ANY RECOMMENDATIONS ON HOW TO IMPROVE THE OPERATIONS. MET WITH RICH SANTOSKY. COMPLETED - CM'S REDUCING TRUCKING. MEETING IS SET UP FOR TODAY 11/14.	4 PRIMES	OPEN
11	1 & 9 ARE STAKED OUT. SHORING IS DONE. EXCEPT FOR WORK ASSOCIATED WITH THE REMOVAL OF THE SOUTH EAST CORNER OF TOWER 1. MATTING SHOULD BE DONE BY SUNDAY AND CRANE SHOULD BE REBUILT BY TUESDAY.	TULLY	OPEN

11/14/01@ 9:00 AM

12	CM'S TO SUBMIT COMMENTS ON EQUIPMENT REIMBURSEMENT PROCEDURES ASAP. MEETING ON EQUIPMENT REIMBURSEMENT WAS DONE. ONLY ONE ISSUE TO RESOLVE BY EARLY THIS WEEK. AWAITING FEMA'S COMMENTS.	4 PRIMES	OPEN
13	WE WILL BE WORKING ON THANKSGIVING DAY. RECOVERY OPERATIONS SUPPORT ONLY.	4 PRIMES	OPEN
14	MEETING FOR DUST SUPPRESSION IN THE WINTER WILL BE SET UP.	DDC	OPEN
15	FIRE BARRELS ARE NOT PERMITTED. ALL OPEN FIRES WILL BE PUT OUT.	4 PRIMES	OPEN
16	4 PRIMES SHOULD SUBMIT AN ITEMIZED LIST OF EQUIPMENT THAT WAS ON-SITE LAST WEEK TILL TODAY.	4 PRIMES	OPEN
17	MEETING TO BE SCHEDULED TO COORDINATE RAMP ACCESS TO SITE.	DDC	OPEN
18	FOOD SERVICE IS SCHEDULES TO STOP ON 12/1/01.	DDC	OPEN

11/16/01 FRI 15:27 [TX/RX NO 8987]

NOV 16 2001 15:30

USPHS

5555555555

P.S



City of New York Department of Design and Construction

WTC EMERGENCY PROJECT

Environmental Health and Safety Bulletin

Bulletin 1

PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS

Section 3.1.1 of the WTC Emergency Project Environmental, Safety and Health Plan addresses the use of PPE. PPE shall be selected, used, maintained, and stored in accordance with OSHA requirements and the manufacturer's recommendations. PPE is a physical barrier that separates the person from the hazard when engineering controls and administrative controls cannot fully protect the worker.

RED ZONE

Minimal Requirements:

- Hard Hat or Helmet
- Safety Glasses or other approved Eye Protection
- Gloves – As Required By Task
- Long Pants and Long Sleeve Work Clothes
- Safety Shoes
- High Visibility Clothes or Equipment

INNER ZONE DEBRIS FIELD AND ANY ACTIVITY THAT DISTURBS DEBRIS OR GENERATES DUST, FUMES, OR VAPORS

Minimum Requirements:

- All of the above, plus
- Half-Face Respirator with P-100, Organic Vapor, and Acid Gas Filters/Cartridges

For further information on this subject contact your employer and refer to the WTC EMERGENCY PROJECT ENVIRONMENTAL, SAFETY, AND HEALTH PLAN

2-12-1



City of New York Department of Design and Construction

WTC EMERGENCY PROJECT

Environmental Health and Safety Bulletin

Bulletin 2

SUBSTANCE ABUSE

Section 1.7.5 of the WTC Project Environmental Safety and Health Plan addresses substance abuse. The WTC site will be a "Drug Free Site". DDC has adopted a zero tolerance policy with respect to the consumption of alcohol or use of drugs during the work shift.

- Use, or working under the influence of alcohol or controlled substances (other than prescribed or over-the counter medication that does not impair one's muscular or mental capabilities or cause drowsiness) is strictly prohibited at all times during the work shift.
- Use of alcohol or controlled substances at any time during the work shift shall result in immediate removal from the site and permanent loss of access.
- Site workers may be subject to substance use testing at any time "for cause" or following a safety or property damage incident.

For further information on this subject contact your employer and refer to the WTC EMERGENCY PROJECT ENVIRONMENTAL, SAFETY, AND HEALTH PLAN

212-2



City of New York Department of Design and Construction

WTC EMERGENCY PROJECT

Environmental Health and Safety Bulletin

Bulletin 3

EMERGENCY CONTACT NUMBER

Section 6.2.1 of the WTC Emergency Project Environmental, Safety, and Health Plan addresses site-wide emergency response. In an emergency, the NYFD Incident Command will assume control of all site actions and notify DDC – EHSS and DDC Command. The project will provide, in a timely manner, response to fire, emergency medical, environmental spill response, and natural disaster response. To facilitate reporting an emergency on the WTC Project site an emergency number has been established. The number is:

212 - 747 - 9193

For further information on this subject contact your employer and refer to the WTC EMERGENCY PROJECT ENVIRONMENTAL, SAFETY, AND HEALTH PLAN

212-3

Mendelson Richard

From: Clark Patricia K New York
Sent: Monday, November 19, 2001 6:56 PM
To:

gk7

Cc:

Subject: FW: Kulick Update

-----Original Message-----

From: Clark Patricia K New York
Sent: Monday, November 19, 2001 6:56 PM
To: Henshaw John; Layne Raymond (Davis); Friedman Bonnie-OSHA; Zettler Berrien-OSHA
Cc: Kulick Robert-OSHA
Subject: FW: Kulick Update



wtc39.wpd

213-1

WTC Update 39 - (11/19/01)

External Coordination:

- Formal partnership agreement scheduled to be signed tomorrow at BTEA/BCTC sponsored *Construction Industry Partnership's 2001 Safety Conference and Awards Luncheon*. Secretary Chao and Assistant Secretary Henshaw scheduled to attend. Signing ceremony scheduled for noon.
- OSHA reps will meet with key players on Wednesday of this week to continue to discuss the development of a formal partnership agreement at Staten Island Landfill.
- RA Clark attended the first meeting of the Steering Committee overseeing the site Labor-Management and Agency S&H Committees. The function and implementation of each committee was discussed.
- The first site Orientation train-the-trainer session was held today. Training for supervisors and foreman will be conducted tomorrow, 11/20/01. Training for workers is scheduled to begin on Wednesday, 11/21/01 and resume the following Friday, 11/23/01.
- John Cavanagh, Vice Chairman of AMEC, responded in writing to AS Henshaw's request to meet with him, the principles of the primes, and city commissioners. Mr. Cavanagh agreed to meet.

Press and Public Relations:

- Final coordination with press representatives from partnership members continues. The following press have expressed interest in attending tomorrow's event: *NY Daily News*, *Newsday*, *NY1*, *Employment Channel* and *NY Times*.
- Department of Labor photographer Shawn Moore visited WTC site with Gil Gillen today and will cover tomorrow's partnership signing ceremony.
- RA Clark received a letter from James H. Lawrence, Chief of Personnel, New York City Police Department, expressing thanks and appreciation concerning the assistance provided by Avenel Area Office staff in providing respirator fit checking and distributing PPE at the Staten Island Landfill.

Risk Assessment/Monitoring:

- Nothing to report.

Safety Team Monitors:

- OSHA rep communicated at today's 8:00am safety meeting that many workers were not wearing reflective vests during the evening shift.

214-1

- FDNY reported that a worker was allegedly shocked with 13,000 volts while conducting utility work in a trench at Barclay and West Streets. He was conscious and alert after being hospitalized. All parties are conducting follow up to verify details.
- A plan is being developed to reduce the number of cranes on the site.

Respirator Fit Testing:

- NYS PESH reported that they are conducting qualitative fit testing of NYPD at Barclay St. from 5:00am - 9:30am.

Personnel Resource Coordination:

- A formal orientation session was held today for 42 personnel from Regions III, IV, V, VI, VII, VIII and IX including staff from State Plans: IA, IN, NC and SD, who are assisting Region II staff this week.

Equipment Coordination:

- Nothing to report.

General Information:

- Demolition of 5 and 6 WTC continues.

214-2

Mendelson Richard

From: Jerome, Edward [edward.jerome@osha.gov]
Sent: Monday, November 19, 2001 1:55 PM
To:

ard;

EX7

Subject: 11/19 - 8 AM meeting Notes

11/19/01 - 8am Safety Meeting

Meeting held at the Amex Building, 26th floor.

All cranes have been inspected, and any new ones coming into service will be inspected before use.

The man-hours worked are needed for the injury data collection.

EPA noted that the Taj is now open.

OSHA - provided the respiratory fit test schedule for this week, as well as the current sampling results summary. It was stated that noise overexposures were found during drilling, boring, and by generators, and it was essential that hearing protection be worn by workers doing these jobs. Also, it was stated that PPE is being provided to City, State, and uniformed personnel. Other than what they may receive at initial fit testing, contractors are responsible for providing their workers with appropriate PPE.

**FDNY noted, and was looking for further information, about a worker who was electrocuted on the 16th while working at Barclay and West. This worker who was sent to St Vincent's Hospital was reported as being Manuel Portella. It is unclear if he worked for Verizon, Con Ed or a sub-contractor. Apparently, while working in a trench he was shocked from 13,000 volts but was conscious and alert. It is believed that the incident occurred around noon on the 16th.

DMAT is removed from Church Street and will be out of West Street tomorrow. Medcor is located in front of the Amex building and will also be at Fulton St. Medcor has the gray and green trailers.

Winterization concerns for dust suppression are being worked on, and information for products which may be used are available for review.

Lou Ricca noted that he observed many workers without appropriate reflective vests during the evening. This will be added as an action item.

215-1-

Mendelson Richard

From: Jerome, Edward [edward.jerome@osha.gov]
Sent: Monday, November 19, 2001 2:00 PM
To:

Ex7

Cc:
Subject: 11/19 - 9AM meeting notes

11/19/01 9:00am Meeting (chaired by DDC and FDNY)

DDC reviewed the list of action items. (The number in these notes match that list. The list will be faxed to the RO today)

- 2 - DDC us now located on the 30th floor of the Amex Building.
- 4 - Slurry wall: 45 tie-backs have been installed and 42 were tensioned.
- 5 - Slurry wall work along Greenwich St is ongoing and a design for the northern end tie-back work is being worked on.
- 6 - Work on Bankers Trust building is ongoing.
- 7 - Meeting will be held today with Customs on ammunition handling protocol.
- 8 - Water level is down in the B6 level.
- 9 - Work involving 30 West Broadway is continuing as planned,
- 10 - Plan is to get some of the cranes off the site as there are too many. This is part of the overall plan to reduce trucking at the site.
- 13 - By 5:00pm tomorrow there will be a plan to support recovery operations on Thanksgiving.
- 14 - Meeting with vendors concerning cold weather dust suppression materials will be held at 10:00am
- 15 - Fire barrels are sill being used, mostly by PD. DDC will send out letter today on this issue.
- 16 - A map has been updated concerning ramps to be installed for access to lower levels.
- 17 - OEM will discuss today the future of food service being provided and an update should be provided by Weds.

New Items:

Verizon and Con Ed will need to work on West over the next 8-10 weeks. Tully will work with them to determine the scope and impact of their work on the site.

Murray is closed to truck traffic. There is a crack in the street and more work will take place there in the future. There are alternate routes. This may affect OEM's defining a new perimeter.

Perimeter Security is mixed. Over the weekend it was non-existent with tours taking place, vehicles going in (including PD vans with civilians), and picture taking. Also, the opposite was noted whereby workers are not getting through the outer perimeter because they did not have the brown

216-1

badges. It was noted that there is a need to get the message out on what is required.

In AMEC area, there are not enough spotters being used by Breeze and a concern about the need to pick up the pace of the work on Bldg. 6.

New roads will be installed to help in the debris removal and recovery operations.

There were recoveries over the weekend.

Liberty reviewed the need of fall protection around excavations and the slurry wall and contractors need to plan for that. Also, talked about the floor boards on flatbed trucks needing to be maintained as there was an injury.

The electrocution from the 8am meeting was brought up, but no one had any additional details.

Respite Centers will be open on Thanksgiving.

Public Health Service leaves tomorrow at 10:00am & is handed off to Medcor.

PESH said that they are doing qualitative fit testing of PD at Barclay St from 5:00am to 9:30am.

216-2

To: Patricia Clark, Efraim Zoldan, Gil Gillen
Et 7

From: Ed Jerome

Notes from 11/19/2001 8am and 9 am meeting

217-1

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217-2

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217-3

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217-4

ITEM	DESCRIPTION	ACTION BY	STATUS
1	INSTALLATION OF GPS SYSTEM HAS STARTED ON SOME TRUCKS. 65 HAVE BEEN INSTALLED, A TEST RUN WILL HAPPEN ON SUNDAY 11/19.	DDC	OPEN
2	DDC'S OFFICES WILL BE LOCATED ON THE 30TH FLOOR IN THE AMEX BUILDING. THE 28TH FLOOR WILL BE THE MEETING ROOM.	DDC	OPEN
3	LZA - T/T HAS ISSUED A LIST OF BUILDINGS REQUIRING WORK. A LETTER WAS SENT STATING THAT EVERYTHING IS OKAY AT 90 WEST STREET.	4 PRIMES	OPEN
4	45 TIE-BACKS ARE INSTALLED. THERE IS TENSION ON 35 TIE-BACKS. <i>42 tension</i>	BOVIS	OPEN
5	WORK ON EAST SLURRY WALL EXPOSURE HAS BEGUN. TULLY IS WORKING THE SOUTH END AND BOVIS IS WORKING THE CENTER. THERE IS AN EQUIPMENT EXCLUSION ZONE - OVER THE VISTA HOTEL AND THE CENTER OF THE SITE ALONG THE EAST SLURRY WALL. APPROVED TO EXPOSE WALL FOR FIRST ROW OF TIE-BACKS SOUTH TO PANEL 23. <i>Greenwood St - ongoing // design for pattern and do not tie-backs</i>	BOVIS/TULLY	OPEN
6	DEBRIS REMOVAL AND SHORING OF BANKERS TRUST HAS BEGUN. EXPECTED COMPLETION 12/1. BRACING AND SHORING HAS BEGUN. WORKING W/ ATLANTIC HEYDT THRU BOVIS. INSTALLATION OF PLATFORM SHOULD BEGIN 11/14. <i>ongoing</i>	TULLY	ON-GOING
7	BECHTEL AND BOB ADAMS HAS ISSUED A DRAFT SAFETY PROTOCOL ON AMMUNITION. WAITING FOR PORT AUTHORITY AND CUSTOMS HOUSE TO REVIEW IT. FINAL PROTOCOL TO BE ISSUED BY THE END OF 11/14. THERE IS A MEETING TODAY 11/16 WITH CUSTOMS. <i>custom meeting today</i>	BECHTEL/DDC	OPEN
8	<i>water level is down</i> SAMPLES WERE TAKEN OF B6 LEVEL WATER. BOB ADAMS WORKING ON PROTOCOL TO ENTER BELOW GRADE LEVELS SAFELY. BOVIS WILL TAKE FREON ABATEMENT UNDER THEIR CONTRACT. WAITING FOR THE PROPOSAL. B6 LEVEL WATER HAS LOWERED BY 3 FT. ANTICIPATE ACCESS BY SUNDAY.	DDC/BECHTEL	OPEN
9	SIDEWALK BRIDGE ON THE WEST SIDE OF 30 WEST BROADWAY HAS BEEN INSTALLED. SCAFFOLD, SHORING AND NETTING TO BE DONE. TURNER EXPECTS TO TURN BLDG. OVER TO CUNY BY MID-DECEMBER SINCE THE ELEVATOR KEEPS BRACING DOWN. CUNY WILL DO ALL WINTER PROTECTION WORK. CUNY TO START DRAIN DOWN ASAP. <i>continuing as</i>	TURNER	ONGOING
10	EACH PRIME SHOULD LOOK AT THEIR TRUCKING OPERATION AND GIVE ANY RECOMMENDATIONS ON HOW TO IMPROVE THE OPERATIONS. MET WITH RICH SANTOSKY. COMPLETED - CM'S REDUCING TRUCKING. MEETING IS SET UP FOR TODAY @ 1:00 PM. ENTIRE PROJECT EFFICIENCY TO BE REVIEWED.	4 PRIMES	ON-GOING

217-5

217-6

11	1 & 9 ARE STAKED OUT. SHORING IS DONE. EXCEPT FOR WORK ASSOCIATED WITH THE REMOVAL OF THE SOUTH EAST CORNER OF TOWER 1. MATTING SHOULD BE DONE BY SUNDAY AND CRANE SHOULD BE RECONSTRUCTED BY 11/25.	TULLY	OPEN
12	CM'S TO SUBMIT COMMENTS ON EQUIPMENT REIMBURSEMENT PROCEDURES ASAP. MEETING ON EQUIPMENT REIMBURSEMENT WAS DONE. ONLY ONE ISSUE TO RESOLVE BY EARLY THIS WEEK. AWAITING FEMA'S COMMENTS.	4 PRIMES	OPEN
13	WE WILL BE WORKING ON THANKSGIVING DAY. RECOVERY OPERATIONS SUPPORT ONLY. A LIST OF ACTIVATES SHOULD BE SUBMITTED AND HOW THEY WILL BE SUPPORTED BY TUESDAY 11/20.	4 PRIMES	OPEN
14	MEETING FOR DUST SUPPRESSION IN THE WINTER WILL BE SET UP.	DDC	OPEN
15	FIRE BARRELS ARE NOT PERMITTED. ALL OPEN FIRES WILL BE PUT OUT.	4 PRIMES	OPEN
16	RAMP ACCESS MEETING HAS OCCURRED. BOVIS IS UPDATING THE MAP.	DDC	OPEN
17	FOOD SERVICE IS SCHEDULES TO STOP ON 12/1/01. UPDATE ON 11/20.	DDC	OPEN
18	3 PRIMES ARE DIRECTED TO BID TRUCKING, DETAILS TO BE REVIEWED AT EFFICIENCY MEETING.	3 PRIMES	OPEN
19	THE EPA FACILITY OFF WEST STREET (TAJ) IS OPEN		OPEN
20	A SIDEWALK SHED REMOVAL LIST HAS BEEN ISSUED. CM'S TO UPDATE AT THE NEXT MEETING.	4 PRIMES	OPEN
21	TURNER IS COMPLING "AS-BUILT" SCHEDULE.	TURNER	OPEN
22	CM'S TO PROVIDE WRITTEN SCOPE OF WORK	4 PRIMES	OPEN

WTC Emergency Project - Safety Meeting Agenda
11/19/2001

Action Items

Item #	Description	Action Needed	Assigned to	Due	Completed
	Will continue to stay put until safety conditions established			11/15/2001	Closed
2	Establishment of the safety committee	First meeting of steering committee scheduled	Rottner / Rabovsky	11/19/2001	
	Meeting scheduled for 11/15/01	Completed at 11/5/01 meeting	Rottner	11/15/2001	Closed
	Meeting scheduled for 11/15/01	Meeting scheduled	Rottner	11/15/2001	Closed
5	Department of Buildings Crane report due <i>all info. now done</i>	List of Inspected cranes provided	DOB	11/13/2001	
6	Coordination of injury data collection	on-going	OSHA / Liberty / DDC / Primes	11/13/2001	
	Coordination of fire and emergency response efforts	Fire radio protocol - DDC	DDC / Uniform	11/16/2001	Closed
	Coordination of fire and emergency response efforts	Fire radio protocol - DDC	DDC / Uniform	11/16/2001	Closed
	Coordination of fire and emergency response efforts	Fire radio protocol - DDC	DDC / Uniform	11/16/2001	Closed
	Coordination of fire and emergency response efforts	Fire radio protocol - DDC	DDC / Uniform	11/16/2001	Closed
	Coordination of fire and emergency response efforts	Fire radio protocol - DDC	DDC / Uniform	11/16/2001	Closed
	Coordination of fire and emergency response efforts	Fire radio protocol - DDC	DDC / Uniform	11/16/2001	Closed
9	Fire barrels being used by NYPD	Shelters to be built - PAPD / NYPD / OEM working on design - DDC / FDNY assessing use of salamanders	DDC / Uniform services	11/16/2001	
10	Orientation training program kick-off	Train-the-trainer to begin	DDC / Liberty Mutual / BTEA / IOEU	11/19/2001	
11	Manual revision 1 underway - need any further comments by 11/10/01	No further comments - revision underway	All	11/24/2001	
12	Fall protection needs to be improved - more fall protection issues being identified	100% fall protection	Primes/ Liberty Mutual		

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**WTC Emergency Project - Safety Meeting Agenda
11/19/2001**


Action Items

Item #	Description	Action Needed	Assigned to	Due	Completed
13	Personnel exiting vehicles while on pile	PPE required while out of vehicles - only get out of the cab as directed by spotter - written policy needed?	Primes/ Liberty Mutual	11/19/2001	
14	OSHA to provide additional information on H2S sampling	OSHA			Closed
15	Signs for PPE needed	Bill needed for new map	DDC / EPA	11/19/2001	Closed
16	Understanding of crane	Meeting to be held today to discuss crane	Primes / Liberty Mutual	11/19/2001	Closed
17	Protocols needed for ammunition and site-wide evacuation	Customs to provide additional information of PPE	DDC / PAPD / Customs	11/19/2001	
18	Emergency response	FDNY - still operational	FDNY / OEM	11/13/2001	Closed
19	Ambient air monitoring locations adequate	Review and recommend new locations based on changing site - in process	Liberty Mutual / EPA	11/17/2001	
20	New map showing areas off limits to heavy equipment	Signs - 11/13/2001 07:00	DDC	11/13/2001	Closed
21	PM of the flatbeds	Trailer floor boards need repair	Primes		
22	Winterization of dust suppression operations	L. Rueda coordinating meeting	DSNY / EPA / DDC / AA		
23	Unstable work Zones	New map showing areas off limits to heavy equipment	Primes		

6-17-9

WTC Emergency Project - Safety Meeting Agenda
11/19/2001

Action Items

Item #	Description	Action Needed	Assigned to	Due	Completed
24	Taj Mahal open 	Communication to workers / uniform services needed	Primes		

Regular Reports

1	Liberty Mutual Update - status of critical safety findings	on-going	Rabovsky		
2	OSHA update	on-going	OSHA		
3	Contractor reports	on-going	Primes <i>- weekly</i>		
4	Uniform services safety reports - FDNY/NYPD/PAPD	on-going	FDNY / NYPD / PAPD		
5	Dust Suppression Report	on-going	Primes <i>- daily</i>		
6	Injury Reports	on-going	Primes / Agencies		

WTC Daily Safety Report



Report Period: 24 hours beginning 7:30 AM on 11.18.01

Observation/Hazard	Location	Corrective Action Required	Status
Fall hazard into excavation by slurry wall	Bovis ramp by West Street	Place one more barrier by the excavation near the drilling operation.	Open
Worker trying to enter hazardous area.	Between WTC 5 & 6 from Tully side to WTC 7	Improve barricades on the Tully side of this area to include barrier and fence the entire length. Place warning signs. Worker observed was stopped and told to go around.	Open
Fall protection anchor point improvements for demolition.	Turner	Holes will be punched on both sides of the overhead beams on each floor so chokers can be wrapped around the beam as a good anchor point for tie-off. Start on 13th floor.	Open
Access to slurry wall between fence gaps where more than a six foot fall exposure exists.	Bovis Liberty Street In front of LR 1400/1 crane	Close the fence gap to eliminate access to this fall hazard.	Open
Fall hazard into excavation by slurry wall	Bovis/Tully on Liberty Street	Enforce tie-off outside barrier by slurry wall	Open
Access to slurry wall work areas.	Bovis west side of slurry wall (Nicholson)	Provide a non conductive straight ladder that extend 3 feet above access point, is secured and no more than 25 feet away from workers. Also, remove the 10 foot ladder that is not tall enough to be used for access on the slurry wall.	Open
Fall into slurry wall	Bovis and Tully	Provide the third wire rope clip on all barrier used as personal fall arrest anchor.	Open
Electrical hazards	Bovis-Nicholson	Replace the extension cord by the visual individual boring machine.	Open
Nicholson Workers inside barrier not tied off in SW corner.	Bovis	Fall Protection.	Open
Need Jersey barriers next to haul road to south slurry wall.	Bovis	Jersey barriers.	Open
Nicholson area needs housekeeping.	Bovis	Time for clean up. System developed for regular cleanup.	Open
Fuel area needs to be cleaned up and cylinders secured. Housekeeping is needed.	TULLY	Housekeeping and security of gas cans and fuel containers is needed. Spills need to be minimized.	Open
Various leading edges need 6 feet back protection barriers.	TULLY	Use Jersey barriers in those areas that have vehicles, such as water trucks, moving around. Any fall hazard to people or equipment needs to be marked preferably with Jersey barriers.	Open
Church Street is seeing some heavy traffic and some are moving too fast given the conditions.	TULLY	Post speed limit signs.	Open
Subway opening left exposed partially on Vessey Street, north of Bldg 5.	Tully	Secure Jersey barriers and fence so no one can enter.	Open
Chain saw operator does not have cut proof chaps.	Tully	Purchase cut proof chaps and make them available to those cutting wood with chain saws.	Open
Check steps for structural integrity SW corner. Bumper hit by drill rig per Nicholson supervisor.	Bovis	Check steps for structural integrity.	Open
Generator access door to main wire connections needs to be secured. Does not lock.	Bovis/Nicholson	Bovis said they would fix this Monday morning	Open
Truck drivers need respirators while being loaded.	Tully	Truck drivers should be wearing respirators when operating on access roads in area and while being loaded.	Open
Jersey barrier is being undermined by leaking water from water truck on the access road just west of Bldg #5	Tully	The "Watchdaws" fire truck connection is leaking and undermining the Jersey barrier at the west barrier edge.	Open
Access road from Church Street to center of pit in Tully area is very narrow and the north side is being undercut.	Tully	The bank needs to be widened or reinforced to support truck and heavy equipment loads. Also needs to be widened as it was hit 2-3 times and only provides approx. 2 feet of clearance to grapple tracks.	Open

12 - Bob Adams said that fall protection continues to be an issue and they need to get a written policy out.

17 - Bob Adams said that there is a safety bulletin, #4; on ammunition handling was issued today. . He said the buffer will be 50 feet as that is what the ammunition manufacture recommends.

19 - Bob Adams said they are still moving forward on ambient air monitoring

21 - John of Liberty Mutual suggested that they try to set up an onsite repair operation for flatbeds. Bob Adams said that was something they would look into.

22 - Bob Adams said that they were looking into materials that can be used in the winter for dust suppression. They have found one product that is very expensive, \$5.67 a gallon. Angel Ariel representative said he would be talking to the Corp. of Engineers on what is being used at SI Landfill.

A question was asked if there was a snowplowing plan. Bill Cote of DDC said operations is starting to look at that

23 - Bob Adams said that the exclusion zones are marked.

24 - The Taj is open. Bob Adams said discussions continue on other uses for it but he is not part of those discussions. EPA was asked if they are counting number of people that use it. They said not yet but later said they are counting.

Bob Adams said that DMAT should be closed by 10AM and Med Corp should be taking over. It may be tomorrow before there is a full change over.

Bob Adams said the lack of reflective vest was an issue last night. He said they are required by the plan.

The issue of vehicle speeding in the Red zone was raised. Bob Adams said it had been a problem in the past and had seemed to get better. He said they would look at the issue again. There than was a discussion about the need for safe pedestrian access, including opening the gate at West Street sidewalk. Bob Adams said he would speak to Lou Reuda of DDC about it.

Liberty Mutual:

They reported that fall protection issues continue at the mezzanine level of the Bankers Trust Building and 30 West. They said there air sampling results match OSHA.

OSHA:

Gil Gillen stressed the need for help from the contractors to get workers to wear sampling pumps. Everybody agreed this was very important and will do what they can to help. Bob Garvey reported that OSHA has send out 600 sampling results to workers.

Liberty Mutual said that overhead protection is needed on man baskets when there is an overhead hazard. They asked OSHA if the manbaskets then need to be rerated. There was a discussion on how the overhead protection is attached to the manbasket. Koch representative said that they have one that is plywood and it is clamped on to the basket. Gil said that OSHA would look into it and get back to everybody

FDNY reported that they would give out the confined space procedure tomorrow.

1218-2

Mendelson Richard

From: Peist, Philip [philip.peist@osha.gov]
Sent: Tuesday, November 20, 2001 4:46 PM
To: Peist, Philip; Clark, Patricia-K. (New York); Gillen, Gil; Kulick, Robert D.;
Mendelson, Richard;
Cortez, Diana E; Jerome, Edward; "1"; Kaplan, Steve; Brennan, Kevin; Ricca,
Louis;
Adams, David; Cherasard, Paul; Garvey, Robert; Gee, Kay; Hoffman, Kris;
Ippolito, David
Subject: RE: 11/20 -8 am

11/20 - 8 AM Meeting:

Bob Adams of DDC went over the some of the Agenda Items as follows:

1 - He said that starting next week the safety meetings schedule would be as follows:

The Steering Committee - Monday 2PM

The General (the current 8AM), meetings will be on Tuesday and Thursdays 8AM

The Labor/Management meeting - Wednesday 8AM

The Agencies meeting - Friday 8AM

2 - He said the safety committee has been formed and the make up of the various committees is in the handouts

5 -He said they are still waiting on some sort of report from the NYC Building Departments Crane Division.

6 - He asked Gil Gillen of OSHA to give an update on injury data. Gil said the raw number is 4.3 LWDI. She said they had to estimate the hours for AMEC. She asked if AMEC could provide the actual hours. She said with real hours the rate my be lower. Bob Adams said the rate was good and gives everybody something to work on lowering. He mentioned the signing of the partnership today and how it is a positive step towards safety on the site. He said everybody needs to work on get correct injury data and hours worked. This will help show actual results. Gil said if anybody needed help with the 200 or 300 forms they can contact Kevin Brennan. There was a discussion about have a training session just on OSHA injury recording. Gil said that maybe possible in the middle of December.

9 -Bob Adams said the use of burn barrels continues to be an issue. He said that the burning might interfere with EPA's air sampling giving results that show higher containment levels then are actually being produced by the WTC activity.

10 - Bob asked Bruce Rattner of DDC to report on the orientation training. Bruce said the train-the-trainer went well. He said that they hope to have two sessions on Wednesday and Friday of this week 12 - 4pm and 7-11PM if they can use the AMEX building. He said these first couple of sessions would be open ones. There was a discussion about the make up of future training sessions such as who trains whom, how long each session will be and who needs what training. He said there will be a meeting 10 AM Wednesday with Lou Ricca in which the details will be finalized. Bob Adams was asked if there is a date when the training requirements will be enforced. He said there was not one yet.

11 - Bob Adams said that safety manual revision work continues and there will be a work group meeting Friday at 1PM

Bob Adams gave an update on Freon. He said more debris had fallen on and around the tanks so that they really are not accessible. He said they would try again on Wednesday to look at them. He said the piping is gone for one tank so it is presumed that the tank is empty. He said it would be a while before they can remove the contents of the other tank.

It was asked if there was any information on the electrical accident. Nobody had any.

EPA said that people are not using the wash stations before going to the food service areas.

Somebody asked if everything below grade was still considered confined space. Bob Adams said yes. There will be exception but the rule is below grade is a confined space.

WTC EMERGENCY PROJECT PARTNERSHIP AGREEMENTS

FINAL EVALUATION

July 15, 2002

The primary objective of these partnerships was to prevent any and all occupational related fatalities and serious injuries and illnesses for all workers involved in the WTC Emergency Project. Secondary goals included immediate abatement of all serious hazards, compliance with the WTC Emergency Project Environmental, Safety and Health Plan (ESHP) and the sharing of all exposure monitoring and safety data. All the partners agreed to accomplish these goals by exerting leadership within their authority and developing a cooperative, focused working relationship that fostered mutual trust and respect for each organization's respective role in the WTC Emergency Project.

OSHA Sponsor:

Region II, New York Regional Office
Manhattan Area Office

Name of Evaluation Author:

Patricia K. Clark, Regional Administrator, New York Regional Office
Richard Mendelson, Area Director, Manhattan Area Office

Evaluation Period:

November 20, 2001 through July 1, 2002.

Injury/Illness Log Rates (LWDII):

The LWDII was obtained by collecting the injury and illness data from all the contractors at the site. The rate was then calculated in the way injury and illness rates are customarily calculated, by dividing the number of OSHA-recordable injuries by the number of hours worked. This rate covers all contractor employees working at the WTC site.

After nearly 3.7 million work hours, only 57 workers at the World Trade Center recovery site suffered injuries that resulted in lost workdays. The lost workday injury and illness (LWDII) rate at the site is 3.1. The closest comparison that can be made is with specialty construction which includes demolition and has an LWDII of 4.3. Of the 57 reported cases, none were life threatening. **No worker fatalities occurred at this site.** This achievement is striking given the exceedingly difficult and sometimes unpredictable nature of the work at the site. It underscores powerfully the leadership, commitment and tremendous sense of purpose the partnership fostered.

219-1

Other Partnership Measurement Data:

In addition to OSHA 200/300 data, PPE compliance rate data, training records, respirator fit test and distribution records, air sampling and hazard identification and abatement data was maintained on a daily/weekly basis. OSHA also decided to monitor the number of worker complaints received.

Analysis of Data:

↗ Data was collected daily through site tours conducted by OSHA, the Safety Manager, contractor health and safety staff, DDC, Liberty Mutual Insurance Company, the labor-management safety and health committee and other government agencies. Air sampling monitoring conducted daily and reported on three times weekly for discussion and follow-up. Safety hazard intervention data collected daily and reported back to committees in a summary form as well as a detailed format for those interested in further analysis. Personal protective equipment (PPE) compliance summary compiled daily and reported back to site labor-management safety and health committee in order to address deficiencies. All of this data was reviewed by the site labor management committee and then translated into an accessible format to be used by various constituencies at the WTC site resulting in the prevention and immediate abatement of serious hazards. The committee produced a weekly worker bulletin designed to highlight the current health and/or safety issue of concern. These bulletins were distributed widely by union stewards who met every Friday to identify hazards, propose safety interventions and prepared to discuss safety issues with their members at daily/weekly tool box talks.

This partnership covered over 2000 building and construction trades workers. Over 1056 OSHA staff worked on this site encompassing nearly 15,000 tours of duty (8 hour tours). The Center to Protect Workers Rights (CPWR), the health and safety division of the Building and Construction Trades Department AFL-CIO, designed and delivered with OSHA's assistance a uniform site-safety orientation for all workers at the WTC site. Over 50 instructors were trained to deliver the orientation program and almost 2000 workers have been certified. Over 90 site workers including contractor managers and union stewards received a mandatory OSHA 10 hour Construction training course. More than 7567 quantitative fit tests were performed by OSHA (5,567) and Vallen Safety Services under contract with MSA (2000). This included 2,887 fit tests of FDNY personnel by OSHA. Over 130,600 respirators were distributed to support the entire WTC project. More than 9000 hazards were identified and corrected. OSHA collected more than 6,500 personal, area and bulk samples at the site. To date, more than 2900 employees were notified by OSHA of their personal sampling results.

✱ ↗ Although PPE compliance rates fluctuated from day to day and varied among the contractor employees and uniformed services onsite, appropriate PPE, particularly respiratory protection was worn by employees when conducting operations with potential exposure to contaminants at or near OSHA PELs.

Despite the difficult nature and complexity of this work, only 57 lost work time injuries occurred, none of which were life threatening. **No worker fatalities occurred at this site.** Additionally, OSHA did not receive a single worker complaint, either formal or non-formal.

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Partnership Challenges/Concerns:

One primary challenge was the fact that the site was declared a recovery operation and a crime scene under the control of the NYC Office of Emergency Management (OEM) with two NYC agencies assigned as co-incident commanders, NYC Department of Design and Construction, (DDC) and the Fire Department of New York (FDNY). Although private sector contractors and employees conducted the bulk of the work at the site, they did not have control of site security, or complete control of site operations as they would on normal construction sites. This command structure on occasion blurred the lines of authority at the site. The breach and often absence of established inner and outer perimeters in order to maintain site control and access was an ongoing challenge.

Additionally, the physical challenges and the complexity and level of construction activity that needed to take place on one site at one time has probably never occurred before. Parts of the towers were thrust into the facades of the surrounding buildings and scaffolds erected prior to the attack needed to be removed. The amount of heavy equipment and the various construction tasks that needed to be accomplished were unprecedented. More than 30 crawler cranes with capacities up to 1,000 ton, dozens of grapplers and excavators, numerous backhoes and bulldozers, hundreds of trucks and many other types of equipment moved quickly about the site around the clock.

Also, while rescue and recovery operations needed to occur, over one-and-a-half million tons of steel and debris needed to be removed along with 1.2 million rounds of stored ammunition and 3,600 pounds of lead acid batteries. Hazardous substances, such as ~ 200,000 lbs. of Freon, 1000 gallons of gasoline and 72,000 gallons of diesel fuel needed to be recovered. All of the above was compounded by the fact that fires burned beneath the debris and rubble for the first four months of the operation.

Adding to this challenge was the need to conduct recovery work concurrent with the construction work. Given the nature of NYC there was a unique interface of pedestrians and heavy machinery and constant adjustment to the construction operation to accommodate recovery work. This tension between the rescue and recovery operation and the debris removal operation continually made the enforcement of personal protective equipment challenging. Uniformed services personnel were not accustomed to a safety and health culture centered around industrial occupational hazards. Most construction personnel, although more accustomed to an occupational safety and health culture, had not been exposed to an environment with such a high degree and complexity of potential safety and health hazards. They were certainly not used to assisting recovery operations.

Another challenge was the fact that this site was highly visible to the press and the public. This added to the complexity of the site and the already enormous challenge of responding to the disaster.

Significant Changes in the Partnership:

The first partnership agreement was signed on 11/20/02. The signatories included OSHA, the Co-Incident Commanders, NYC DDC and FDNY, the four prime contractors, Bovis, Amec, Tully and

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Turner/Plaza as well as the Building Trades Employers Association (BTEA) Contractors Association of Greater NY (CAGNY), General Contractors Association (GCA), and the Building & Construction Trades Council of Greater NY, (BCTC).

A second supplementary partnership agreement was signed on April 10, 2002 to more accurately reflect the traditional partnership structure, (OSHA, employer, employee) and to reflect consistency with OSHA's policy on partnerships as defined in OSHA TED 8-0.2 - *OSHA Strategic Partnerships for Worker Safety and Health*. The signatories included; OSHA, Bovis/Amec, BTEA, BCTC, CAGNY and GCA.

Impact of Partnership:

This partnership had a proactive and positive impact on the safety and health of employees engaged in the WTC Emergency Project, in addition to creating and continuing a very positive working relationship between OSHA, the Building Trades Employers Association, the Building and Construction Trades Council of Greater NY, the City of New York and various Federal, State and Local government agencies.

One of the most important results of this partnership is the very high level of safety and health oversight, training and involvement in the process that the workers at this site were afforded. The development of a strong Labor-Management Committee and steward system created an alternative and effective mechanism for worker concerns and complaints to be expressed and addressed. The end result is an LWDII rate that is significantly less than the national rate for specialty construction and **not one worker fatality**. This is remarkable given the nature and complexity of this operation which has been described by many as potentially the most dangerous work site in America. Sadly, 31 construction workers at other work sites in New York and New Jersey were killed on the job during the same time period as this project as a result of falls, falling materials, crushing accidents and electrocutions. These same hazards were ever present at the WTC site.

The unique command and control structure at this site created the need for considerable communication, coordination and cooperation amongst all the parties involved. The OSHA partnership agreements and the WTC Emergency Project ESHP provided the framework and structure for that to occur.

The amount of cooperation and coordination amongst the numerous Federal, State, and City agencies as well as the private sector organizations involved is unprecedented and quite remarkable. The professional and personal relationships that were established will clearly serve each organization well in working together on future challenges, projects and initiatives.

Recommendation for Future Partnership(s):

When entering into emergency response partnerships, it is recommended that clear lines of authority for all functions at the site, with particular emphasis on worker safety and health, be established prior to implementation. If possible, and to overcome initial inertia, it is recommended that individuals with experience at this site be included in future operations. Top level executive

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commitment and involvement from all partners (Federal, State, City agencies, labor and management) are critical to the success of any endeavor such as this and is highly recommended.

Based on all the positive impact that these agreements have had, it is recommended that a similar partnership arrangement and structure be implemented if another disaster of this magnitude, scope and scale occurs. This will result in a high level of communication, cooperation and coordination amongst Federal, State, Local and private sector organizations which is needed to ensure worker safety and health. It is also recommended that OSHA work pro-actively with uniformed services locally to assist them in preparing for future events in which exposures to occupational hazards are likely to occur.

Additionally, based on the positive relationships that have been formed as a result of these agreements, it is recommended that future opportunities be explored to work with the signatory parties represented to continue pro-active and positive impacting of worker safety and health.

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